

THE MEDICAL TIMES.

THURSDAY, JUNE 1, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON THE USE OF EARTH AS A DRESSING IN SEVERE BURNS.

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GENTLEMEN: Although I have already occupied a considerable portion of the time during which you have been attending my clinics in the exhibition and the discussion of the advantages of earth dressings for various conditions, I do not know that it is necessary for me to apologize to you for my intention to occupy a whole hour to-day in the consideration of the use of earth in severe burns. For, in the first place, the very special interest which you have all displayed in the cases exhibited under such treatment heretofore is certainly sufficient to justify me in the idea that you are not weary of seeing them; and, in the second place, it is only in my wards that such dressings are used, and I wish, therefore, to give you every facility of seeing them and of judging for yourselves of their true value. Furthermore, the very class of cases to which I wish specially to direct your attention to-day, as to the advantages of the earth dressings, is unfortunately terribly on the increase: I refer to burns of the third and fourth degrees, according to Dupuytren's classification,—that is, burns which, involving a greater portion of the thickness of the skin, are certainly the most painful of all such casualties. These, of late years, have increased at an enormous rate, owing, it would seem, to the very general use which is made of coal-oil by the humbler classes as a means of light. This oil produces, when burning on the body, a much deeper destruction than follows the burning of camphene, which was formerly used. The latter is far less tenacious, and very volatile, and therefore usually produces a burn of the first or second degree; whereas you seldom see an injury from burning of coal-oil in which there is not destruction to a much greater depth. I am confident that if our records in this hospital were sufficiently definite this point could be demonstrated beyond all doubt. As it is, they furnish strong presumptive evidence in support of this view. A few years ago I was strongly impressed with the idea that the character of burns then admitted to this hospital was much more severe than it was when I first became familiar with its wards, nearly twenty-five years ago; and examining our books of admission and discharges, I ascertained two facts which, I think, may be fairly taken as confirmatory of that impression. These are, first, the great increase of mortality from "burns" there recorded as having occurred in this hospital in the last fifteen years—that is, since coal-oil came into general use—over what occurred in the fifteen years previous, the difference being actually such as to double the mortality; and secondly, the increased mortality in the last fifteen years was confined essentially to women and children. The first fact, I would argue, indicates an increased seriousness in the character of such injuries; and the second, that the increase has been in the class most liable to casualties at home. Furthermore, the difference between the two periods is well defined. Up to the time at which we can fix the introduction of coal-oil into use in Philadelphia, the mortality in this hospital from "burns" had been each year about the same, whereas, since then, it has, up to within four years, steadily increased. We have, then, so far as I can see, no other means of explaining these

facts. The terrible character of the injuries inflicted by this article, when ignited, you will have a fair opportunity of witnessing in two of the cases which I shall present to your notice to-day. These two cases, having been subjected to the ordinary treatment during the greater part of their sojourn here, furnish us with some of the material for the contrast which I purpose making between such treatment and that with the earth dressings. Before exhibiting them to you, I shall, however, bring forward a case which has been treated throughout with the earth.

Case I.—Was admitted four weeks ago last evening. She is, as you see, a stout, hearty-looking woman. She weighed, at the time of the accident, over two hundred and twenty-five (actually 227) pounds. She was then cooking at a range, and, leaning over the fire, her hair fell down, and, reaching into the flames, ignited, and burnt her very severely, not only about the neck and face, but on both hands, forearms, and arms, and right breast. No doubt, the greater part of the injury was caused by her endeavors to extinguish the fire in her hair. She was admitted to the hospital a few hours after the accident. The burns on the head involved the forehead, both cheeks as far forward as the malar prominences, the chin, lips, and ears. These burns were of the first, second, and (in some places) third degrees. The whole of the hand, two-thirds of the flexor surface of the forearm, and two spots of about two inches in diameter on the arm of the left side, were burnt fully to the third degree. The dorsum of this forearm, and half of this arm, were all vesicated, constituting burns of the second degree. The injuries to the right upper extremity involved the hand (almost, but not quite, its whole surface) to the third degree; the thumb, index, and little finger, to the fourth degree; more than half the circumference of the forearm, towards the inner side, and its whole length, to the third and fourth degrees; and the inner surface of the arm, more than half its length, to the same depth. There was also a burn on the right breast, evidently a deep one, and one on the shoulder of that side. The burns on the neck involved, within three inches, its whole circumference and its whole length, and varied in degrees from the first to the fourth.

The earth was applied immediately after the patient's admission. On the face, forehead, and ear it was applied as a powder or a paste, and allowed to dry without any covering to retain it in situ. The scabs or crusts so formed were never disturbed, and fell off of their own accord within the first two weeks, leaving no trace, in the form of cicatricial tissue, of the injury which had been received. You can see, on close inspection, three different tints of redness in the face, indicative of the three different degrees of burning which the parts there had sustained. Those of you who are near enough can, by feeling, satisfy yourselves that there is not a trace of cicatricial tissue to be found there. The skin now covering the points which were burnt is as soft and pliable as that on any other part of the body.

This patient's arms, forearms, hands, breast, shoulder, and neck were dressed with the clayey earth, spread in the condition of a thick paste on strips of bandage, and so applied after the method of Scultetus, the burnt surfaces having been previously dusted with the powdered earth. This dressing was then covered with plain blue tissue-paper, and all retained by spiral bandaging.

On the following morning, when I saw her for the first time, she expressed herself as being free from pain in the burnt surfaces, except at a number of points where, as was before mentioned, the injury sustained was of the first and second degrees; and I at once surmised, from past experience in these cases, the cause of the pain,—namely, the vesications which had formed since the dressing was put on. The removal of the dressings proved this to be the case, for in every instance where she designated the seat of this special pain we found a large bleb filled with coagulated lymph. These blisters I

opened freely, and covered with the dry powdered clay, which instantly removed the burning pain. The dressing was then reapplied, and the patient expressed herself most emphatically as entirely free from pain. On the next morning, however, she had a good deal of complaint to make, and urged me to apply "linseed-oil and lime-water," as it would cause her less pain, and heal her burns up at once. I was confident, from this circumstance, that she had been tampered with. The removal of the dressings showed that the sloughs were beginning to separate; and in some places the hard crust of the earth and dead tissue could be seen to occasion her acute pain as it was drawn off without previous moistening. I therefore used water for the first time; and washing off the balance of the dressing, made it quite evident that her sufferings were from the dressings having got too dry. Consequently, when I put them on again, that morning, I used waxed blue paper on both extremities as an envelope, in place of the plain paper. The next morning she stated that she had been entirely free from pain, and admitted that her complaints the day before were exaggerated, and had arisen chiefly from some one telling her that I was not using the best dressing for her condition. On opening the dressings this morning, there was distinctly perceptible that peculiar odor which you have often had the opportunity of noticing where the earth has been twenty or more hours in contact with sloughing tissue. It resembles more the odor of *salt marshes* than anything else I know of. It is due to the earth becoming saturated with the *elements* of the disintegrating tissues, and is the only odor ever perceptible where the earth dressings are used, and then only when the earth is quite saturated with the discharges.

The covering with waxed blue paper was continued until the tenth day, when all the sloughing and dead tissue had come away.

Up to the fifteenth day the discharges from the right arm were always sufficient to penetrate the dressings in the course of the twenty-four hours. On that day it was noted for the first time that no discharge had escaped through the dressings, and measurements across the ulcerated surface at its widest points— $1\frac{1}{2}$ inches above the styloid at the wrist, and 2 inches below the bend of the elbow—were respectively $2\frac{1}{2}$ and $2\frac{1}{2}$ inches less than they were the day before. The limb was washed on these mornings only on purpose to take these measurements with accuracy.

Two days later, although some discharge had penetrated through the dressings of this same arm,—which you will remember was the worse injured,—it was noted that "a band of healthy skin $1\frac{1}{2}$ inches wide had formed across the wrist." The earth was picked and washed cleanly off, to make this perfectly evident, before the measurements were made.

With the left upper extremity we had even more rapid progress; the sloughs not only separated very promptly, but the ulcerated surfaces left by their separation on the eighth day (after the injury was inflicted) were then thoroughly dusted with the dry earth, which crusted on them, and remained there perfectly dry, except at four minute points, until the eighteenth day (April 2), when I washed the limb for the first time since the eighth day, and revealed the surfaces completely healed, and covered by healthy skin, with the exception of three small points between the fingers, and a small ulcer, the size of a half-dollar, at the wrist. The earth dressings were reapplied to these points for two days longer, and on their removal then, it was found that the whole of the extremity was healed. The progress in the right limb continued steadily; and, that you may judge of its rapidity, I will read to you the note of yesterday: "A bridge of skin has now (*i.e.* within twenty-four hours) formed across the ulcer at the

bend of the elbow, leaving a granulating surface on the forearm four inches long." Now look at the size of that ulcer: it is but little over two inches in length, and by the same rate of progress will be entirely covered in the next twenty-four hours. These two ulcers on this limb, the one on the breast, and the one on the shoulder—all about the same size—constitute all that is left of the original injury, which you must remember was inflicted on this woman only twenty-eight days ago last night.

The result in this case is certainly one of the most satisfactory, if not the most extraordinary, that it is possible to conceive of. Her burns, most of them of the third and fourth degrees, which, as a rule, heal with ugly cicatrices, maiming and disfiguring the patient for life, have healed by the most satisfactory of all reparative processes where there has been loss of tissue,—namely, by "*scabbing*." Her face, neck, and left upper extremity present the most perfect specimens of this mode of healing it has ever been my fortune to witness. On many parts of the left limb you can observe (as also on the right) the *scabs* which have been formed by the clay; and as I peel these scabs off, you can see the new skin beneath, perfectly soft, pliable, and entirely free from all trace of nodular tissue. It is as thin as the skin in any other part of her body.

While on this point, I will read to you from *Holmes' Surgery* what Mr. James Paget says on this mode of healing,—and he is the highest of all authorities:

"*Healing by scabbing*, or under a scab, is the most natural and, in some cases, the best of all the healing processes. Very commonly in animals, if a wound be left wide open, the blood and other exudations from it dry on its surface, and, entangling dust and other foreign bodies, form an air-tight and adherent covering, under which scarring takes place, and which is cast off when the healing is complete. The exact nature of the process has not been watched; but it seems to consist in little more than the formation of cuticle on the wounded surface; and it has the advantage that, as no granulations are produced, there is little or no contraction of the scar. In man the same process is less frequent; it is more apt to be spoiled by inflammation, producing exudations under the scab, which either detach it or prevent the healing of the surface beneath it. Sometimes, however, the blood shed from a wound coagulates and dries on it, and, remaining as a scab, permits healing under it; or, if this do not happen, a similarly effective scab may be formed by the serous fluid or lymph by which the surface of an exposed wound usually becomes glazed; or, more rarely, the pus of a granulating wound may scab over, and sound healing take place beneath."—*Holmes' Surgery*, vol. i. p. 587.

Those of you who have been constant in attendance on my clinics can certify to the accuracy and clearness of all that has been said by this eminent authority, with possibly one exception, namely, his statement that, "as no granulations are produced, there is little or no contraction of the scar," which would seem to intimate that a granulating surface must always, even when healing under a scab, result in a contracted scar. The case before you flatly and positively disproves such an idea. For we have, on the face, neck, and the whole left upper extremity, the most convincing proof that although these surfaces were, twenty days ago, in a granulating condition, not the slightest trace of a contracted scar is to be found there to-day.

This patient, I freely admit, has had everything in favor of a good result, so far as her general condition is concerned. She was at the time of the accident in the enjoyment of the best health, and in the most admirable state of nutrition. But those of you who visit the wards with me, and saw her the morning after her admission, know that she sustained a terrible injury,—of which she even now presents sufficient evidences.

To prove to you that similar results, although of course not so perfect, can be obtained in patients in

quite an opposite state as to general health, I will now show you another case:

Case II.—This patient is thin and emaciated to an extreme degree,—with complexion, skin, hair, and teeth showing that her general condition must have been of the worst kind long before she met with her injury. She is a widowed woman, fifty-four years of age. Lost three children in their infancy, and has two living.

On the evening of the 26th of January (eleven weeks ago to-morrow) she stumbled and fell whilst descending a flight of kitchen stairs with a lighted coal-oil lamp in her right hand. The contents of the lamp, in an ignited state, ran over the right upper extremity, shoulder, side of chest, neck, face, and head, destroying most completely the integument (to the third and fourth degrees) from about two inches above the wrist to the crown of her head. The hand was badly burnt, but most of it only to the second degree. Her left hand was also burnt to the same (second) degree. She was immediately conveyed to the hospital, where her injuries were dressed by the resident physician of the ward with oxide of zinc ointment. This treatment I did not change when I took charge of the ward on the 1st of February. Under it both hands (burns of the second degree) were completely healed at the end of four weeks, and some cicatrization had in that time been effected along the margins of the burns on the head and neck, and the lower margin of the burns of the forearm. In this interval of time powdered oxide of zinc was twice sprinkled over the denuded surface, but occasioned each time so much pain that its use was discontinued.

To my inquiries each morning as to how she felt, and was doing, I always got (during these four weeks) a most cheerful answer from the patient,—that everything was doing well; and the answer was given in such a way that I fully understood that she did not want me to make any change in treatment.

My resident, Dr. Gerhard, told me, however, at the end of this time that things were not making good progress, and, after a careful examination, during which it was quite evident the patient was very much afraid of me, I determined to continue the same treatment. This seemed to inspire the poor woman with a little more confidence. Shortly after this event, the patient whom I have just exhibited was admitted into the same ward, and placed in a bed directly opposite to this one; and it afforded me no little amusement to observe the latter's intense interest in the earth treatment, and with each day's favorable report of No. 1, this woman seemed less and less afraid of me, and she would give me a "God's blessing," or a God speed, each time I left the room. Then she began to be a little more communicative, and said the cerate gave her pain, a thing which she would not admit before. Finally she expressed a desire that I should do something more for her than was being done. Last Monday week (April 3) I determined to apply the earth to the forearm only, and so dispossess the patient's mind of the notion which had evidently been at one time very strongly impressed there, that such a dressing would not suit her case, and which still had some footing, for she murmured something about not being strong enough to bear it.

The following is the note taken of the condition of the ulcer on that day:

"There is a continuous ulcer involving the right side of the head and neck, the shoulder, as far down on the back as the spine of the scapula, the front of the right chest, involving the whole mamma, the side of the chest, axilla, the whole arm and forearm to within two inches of the wrist. The hand and these two inches of the forearm are covered with a scaly cuticle. There are two small islands of cuticle of about the size of a dime on the dorsum and ulnar side of the forearm. All this ulcerated surface has a pale, smooth, and glazed appearance, with distinct vessels distributed on it, and does not seem to have healed any in the last three weeks. The discharge is thin and serous in its character."

I then sprinkled the surface of the forearm and about two inches of the arm at the elbow with finely-sifted clay, and noticed with satisfaction the change of expression in my patient's face: it was that of positive relief from dread. Over this powder I applied the strips of bandage covered with wet clay, then the waxed blue paper and a spiral. To the rest of the burnt surface I had the cerate of oxide of zinc reapplied as heretofore.

On the next morning the patient stated that she had been entirely free from pain in the parts covered by the earth, but that it still continued in the parts to which the cerate was applied. When I took the dressing off the forearm it was found that one of the islands of cuticle, which the day before was of the size of a dime *only*, had increased so as actually to measure five *inches* in length by two and three-quarters in width, and extended from the olecranon down along the back of the forearm. There was also a good-sized spot, over one and a half inches in diameter, well covered with skin, on the back of the arm. The granulations over the rest of the surface which had been covered by the earth had evidently become more healthy, as could be seen by contrast with the part which had been covered by the cerate. The discharge was also thicker, and much less in quantity.

On the next day it was noted that the skin formed on the back of the forearm had reached to eight inches in length, and had increased considerably in width. The discharge was thicker and more abundant, and had kept the dressing thoroughly saturated. The patient complained of having had pain on the under surface since midnight. This I proved to have been caused by the dressing getting saturated and being kept so by the waxed paper; for that afternoon I removed the dressing to show the case to my distinguished friend Professor Gross, who did me the honor of coming to see some of the cases on which I had been using the earth dressings. In place of the waxed paper I applied the dressing with the plain blue paper, and the next morning everything was dry on the outside, and the patient had not had any pain whatever in the forearm.

You can now see what changes have occurred since then,—that is, in the last six days. Here is the large island of skin,—much increased in size,—with all its conditions as perfect as though there had never been an injury there. Notice carefully the characters of the skin which has been formed here: they are precisely like those of the skin of her other arm, which was never injured, save in the color. Contrast also the surface not yet healed, and which has been under the influence of the earth for nearly ten days, with those of the parts where the cerate has been constantly applied, and you can see a very great difference. As I peel off with the forceps a cake of the earth here on the back of the forearm, you will notice that the surface is bedewed with a clear transparent fluid, like that on the surface where the cerate has been; but in a few seconds this fluid in the former place congeals, and gives us the idea that the parts there are actually healed, whereas in the latter it remains a thin serous fluid. It is thus evident to you that in the one place—where the earth has been—the fluid exuded is coagulable, whereas in the other it is not so. This, as you well know, is a very important difference. The relief that this poor old woman has had from the earth dressings has made her very importunate to have them applied all over her injury; and I have promised her that they should be to-day, after you have had the opportunity of contrasting the effects of the two kinds of dressings.

Now, I think I have proved to you by this case all that I promised, namely, that earth exerts a healing influence even where the general conditions of the patient are not the most favorable. I will now show you a case where the earth dressings have been applied to

one set of burns, and the ordinary treatment to another, both the result of one (and a similar) injury to different parts of the body. This case you will all remember my having exhibited here shortly after his admission.

Case III.—This patient burned himself whilst drunk, by going into a rolling-mill and falling on some iron which had just been removed from the rollers. The injuries which he thus sustained were four deep burns,—one set of two on the left temple and side of face, and the other of two on the forearm and hand of the right side. He was admitted to the hospital shortly after the accident, on the afternoon of March 28, and my resident, recognizing the fact that these four deep eschars had to be separated before any repair could take place, applied to them all yeast poultices. When I saw the case at my usual hour of visiting the wards the next morning, at 7½ o'clock, I thought it was an excellent one for making a comparative trial of the earth dressing and of the ordinary treatment. I therefore selected for the former the worse set,—the burns on the head. These were—one involving all the temporal fossa, within half an inch of the ear, and the other an eschar or burn of the fourth degree, an inch in diameter, directly over the zygoma, and separated from the first by not more than an eighth of an inch of sound skin. The burn in the temporal fossa involved not only the skin through its whole thickness, but also the temporal fascia, and a considerable portion of the muscle beneath.

The burns on the extremity were, one just above the wrist, circular in form, and an inch and a half in diameter, and another of nearly the same shape, but half the size, over the dorsum of the carpus. The latter was evidently not of any greater depth than the lesser injury on the head, and the former seemed to go entirely through the subcutaneous cellular tissue. The two sets of burns were, therefore, relatively alike,—although that which I selected for the earth treatment was clearly the worse, certainly the more extensive, of the two.

When I showed the case before, you will remember, the patient was most emphatic in his declarations that the burns under the earth treatment did not give him any pain, whilst those under the poultice and cerate had constantly pained him. He has given us the same answer, of course, when blue wash and nitrate of silver were applied to the burns on the extremity, as it has been necessary to do recently, in order to destroy the flabbiness of the granulations there, and to hasten cicatrization. Now, what I wish specially to call your attention to, to-day, is the result. We cannot very readily make any fair comparison as to the rapidity with which the healing has occurred in the two places,—for there was originally four times as much to heal in the one place as there was in the other. But you can all see for yourselves the difference in the manner in which the healing has taken place. At the wrist the seats of the burns are now occupied by well-defined and hard cicatricial tissue, which is easily isolated from the healthy tissue surrounding it; whereas on the temple you do not see a trace of anything of the kind. Here, between what were the centres of the two burns,—and you will remember that their opposed borders were almost touching,—we have now a surface of perfectly healthy skin of a deep pink hue, free from all induration or adhesion. I can pinch it up and move it freely. There is certainly no way of accounting for this difference on the score of locality. One part has been as much subjected to motion as the other. The patient has been using his hand and arm quite freely ever since the ulcers began to granulate; and the ulcer involving the temporal muscle, you can readily understand, has been subjected to the influence of motion every time he has opened his mouth. The advantages from the earth dressings are here most positively evident.

In illustration of the effect of earth dressings on the results of severe burns I have yet to show you another case, which has occasioned a great deal of amazement

among some of my medical friends who have been watching it:

Case IV.—This patient was admitted on the 17th of December last, for severe burns of the right breast and of the inner sides of both lower extremities in the vicinity of the knee-joints. These burns were mostly all of the fourth degree. She was also burnt on the neck in the first and second degrees. The accident was the result of a child throwing a lighted match into a lamp which this woman was filling. When she came under my charge, on the 1st of February, the injuries were nearly all healed. There were some ulcerated spots around the margins of all the deeper burns; but the cicatrices were so contracted at the knees that the patient could not stand on her limbs. There were also the most positive evidences of keloid degeneration,—that form of keloid which occasionally shows itself in cicatricial tissue. This is, strictly speaking, a hypertrophy of the fibrous element which enters into the structure of ordinary cicatrices. Such growths, we are told by Mr. Paget, “rarely surpass half an inch in thickness or more than half an inch in any direction.” In this case they had some time since attained nearly such a size, and had not changed any in the past month—up to last Thursday. My presumption was, therefore, that they had ceased to grow, and, recalling the effect of the earth dressing on similar hypertrophies which I had seen, I determined to give it a trial here. The patient had then been over fifteen weeks in bed, in a helpless condition,—for she could not move from where she was lying, except on her hands and knees or buttocks. I had directed constant resort to passive motion, to see what it would do to overcome the tendency to contraction; but further than that I had not meddled with the treatment under which I found her.

On last Thursday I selected the right limb for the trial of the earth. My reasons for doing so were that it was by far the worse of the two. The burn on this limb had originally extended from six inches below the knee to within an inch of the vulva,—equal to sixteen inches in length,—and involved at the knee two-thirds of the circumference of the limb: the injury to this limb was thus thrice as great as that which the left had sustained. The keloid degeneration was also very much worse; and so with the contraction of the knee, for it was such as to hold the limb bent at an angle of about 80 degrees, whereas the contraction of the left was not over 40 degrees from the straight line of the thigh,—and it was quite evident that if she could only get this right limb sufficiently straight to sustain her weight, she would be able to move about with facility. Professor Gross in his visit to the wards with me on Wednesday evening saw this woman and examined her with considerable interest. I did not inform him at the time of my intention to use the earth dressing in the case. When he saw her again, two days later, his surprise was very evident; she was then walking about the room, and expressed herself to him as very much relieved of the pains with which she had been annoyed prior to the earth being applied. There was, even at that early date in the use of the earth, a marked improvement in the appearance of the surface of the cicatricial tissue. It was not only not so indurated as it had been, but it was less so than the cicatrix on the left knee. No blisters had formed on the portions occupied by the keloid, and the subjacent tissue was evidently freer. Pinching up the margins of this cicatrix, so as to embrace a thickness of the sound skin and one of cicatricial tissue between the finger and thumb, it was susceptible of demonstration, by contrasting it with a similar fold of sound skin alone, that the cicatrix was a quarter of an inch thicker than the sound skin.

Forty-eight hours later, this difference was reduced one-half; and to-day, six days only since the earth was first applied to this knee, you can see for yourselves by comparing the two knees that improvement has occurred. All the cicatricial tissue which has been covered

by the earth has become soft and pliable, and presents in that respect alone a marked contrast to the portions which have been left uncovered. You can also perceive how much more readily she can use this limb, straightening it perfectly, and bearing her whole weight on it. This is a result unquestionably due to the earth dressing.

ORIGINAL COMMUNICATIONS.

JAUNDICE CAUSED BY THE PRESSURE OF ENLARGED GLANDS UPON THE DUCTUS CHOLEDOCHUS COMMUNIS.

BY JAMES H. HUTCHINSON, M.D.,

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THE case which has suggested this communication was one of jaundice from obstruction, originating, in part, from the pressure of enlarged glands upon the common gall-duct, and, in part, from perihepatitis. For the following notes I am indebted to Dr. J. C. Wilson, resident physician at the Pennsylvania Hospital.

Charles McL., Irish, æt. 26, married. Emigrated to this country four years ago, and has ever since worked in a coal-mine, but appears previously to have been an iron-miner. Has no hereditary tendency to disease. His parents, brothers, and sister are all alive and well. One of his children died of hooping-cough, the other is healthy. Has been a moderate drinker, never exceeding, except on rare occasions, two glasses of whiskey a day. Denies ever having had a chancre, and certainly presents no evidence of the syphilitic taint. Has also enjoyed good health until the commencement of his present illness, which began in July, 1870, with a short, dry cough, pain in the side, loss of strength and flesh, failure of appetite, and diarrhoea. Towards the close of July he stopped work, and in September jaundice was added to the other symptoms.

On admission.—His weight is 122 pounds; his skin and conjunctiva are of a bright yellow color; his tongue is very red, with a coating of white fur in the centre. His voice is whispering and suppressed, and there is slight laryngeal stridor. He coughs especially at night, and occasionally expectorates muco-purulent sputa. His passages are liquid and large, and are almost as white as chalk. There are also clubbing of the finger-ends, and œdema of the feet, but no ascites. Upon inspection, the right side of the chest is smaller than the left, and moves less freely; the right shoulder is depressed, and the right infra-clavicular region is retracted. Upon measurement, the chest, one inch below the nipple, is $34\frac{3}{8}$ inches in circumference (his usual girth being 36 inches); the left side being $17\frac{1}{2}$ inches, the right, $16\frac{3}{4}$ inches. On palpation, the vocal fremitus is more marked over the lower part of the left side of the chest than the right. The margin of the liver cannot be felt below the arch of the ribs, but there is a feeling of resistance on the right side. On percussion, there is less resonance over the whole of the anterior surface of the chest on the right side than on the left. Hepatic dullness begins in the line of the nipple at the lower edge of the fifth rib, and extends to a point half an inch below the arch of the ribs; in the axillary line, it begins at the seventh rib, and extends four inches. There is extension of dullness to the left, and also marked dullness in the triangular space included between the ensiform cartilage and a line connecting the tenth ribs.

On auscultation under the right clavicle, the respiratory murmur is harsh and somewhat jerking. No adventitious sound can, however, be heard. Posteriorly the respiration is feebleness on the right side than on the left.

The impulse of the heart is felt in its usual position, and a pulsation is noticed in the epigastrium; but there are no signs of disease of the heart or of the large blood-vessels. His pulse, respiration, and temperature are as follows:

	Pulse.	Respiration.	Temperature.
Feb. 4, A.M.	96	22	101
" " P.M.	112	21	102½

The examination of the urine gave the following result: Sp. gr., 1013; reaction, alkaline; color, brownish red; contains albumen and a slight amount of biliverdin, but no bile-acids.

Feb. 9.—The patient complains to-day of a very severe pain in the left axillary region. On physical examination, dullness on percussion, and a faint, inconstant friction-sound, were observed. The ensiform cartilage is seen to be tilted forwards. The following measurements were taken: Distance from tip of ensiform cartilage to pubis, $12\frac{1}{4}$ inches; to umbilicus, $6\frac{3}{4}$ inches; girth of body at ensiform cartilage, $35\frac{1}{4}$ inches; an inch and a half lower, the same; at umbilicus, $31\frac{1}{2}$ inches. There is occasional expectoration of clots of blood mixed with mucus.

Feb. 24.—An erysipelatous flush on the left side of the face was noticed to-day. It is not accompanied by constitutional symptoms of severity.

Feb. 28.—The other side of the face is to-day invaded by the erysipelas. The jaundice appears to be less marked. The measurements of the abdomen are, however, somewhat increased. The patient, who, up to the time of the commencement of the attack of erysipelas, had improved, has lost, in consequence of it, the little ground that he had gained. The voice, which had resumed, to a slight degree, its sonorous character, has been again reduced to a whisper, and we are unable to use local medication, since he says the use of tr. ferri chloridi and other remedies by the atomizer excites vomiting.

March 13.—The girth of the body, an inch and a half below ensiform cartilage, is $34\frac{1}{4}$ inches,—an inch less than when measured on February 9.

March 20.—Epistaxis, which has occurred more than once during his sickness, has now become a troublesome symptom. It has, however, thus far been checked by the use of styptics.

March 25.—The patient is evidently sinking. Hepatic dullness in the line of the right nipple begins at the sixth rib and extends to the arch of the ribs. There is still dullness in the epigastric region. Although the muscles of the abdomen are much less tense than they were, the edge of the liver cannot be felt. The discoloration of the surface has very much increased, the patient's skin being now of a greenish-yellow hue. His irides, which are naturally blue, are now decidedly greenish. The emaciation has very much increased, and the feet have become more œdematous. His shirt and the sheets of his bed are discolored by the urine.

March 26.—Patient evidently worse, but says he is better and that he feels more comfortable. The respiration has become more stridulous, indicating the probable presence of sub-mucous laryngitis. There are no petechiæ, and no diarrhoea, and the tympanic distention of the abdomen has entirely disappeared, the circumference at umbilicus being only 28½ inches; between ensiform cartilage and umbilicus, 27½ inches; at ensiform cartilage, 34 inches; the distance from ensiform cartilage to pubis, 10 inches; to umbilicus, 5¾ inches.

March 27.—Death took place to-day at 10 A.M. The autopsy was made the same day, six hours after death. Rigor mortis well marked. Emaciation of upper part of body extreme. Lower extremities œdematous. Surface uniformly discolored, being of a greenish-yellow color.

Head not examined.

Thorax.—On cutting through the skin over the sternum, the little fat that remained, as well as the fasciæ, was found to be stained by the biliary coloring matter. The muscles were dark brown in color. No effusion in either pleural cavity, and no adhesions between the costal and visceral surfaces existed. The lungs were of an intensely black color, and when cut exuded a frothy black liquid, which stained the hands. The pleura of the right lung was thickened, and between the lobes of the corresponding lung fine adhesions were found. The lungs contained a number of minute bodies resembling the touch military tubercles.

The heart and aorta were healthy. The veins of the neck, when cut across, exuded a liquid blood which also discolored the hands.

Abdomen.—The liver was found to project beyond the arch

of the ribs on the right side, but did not extend higher into the chest than the fifth interspace. The left lobe was much enlarged, and, filling up the whole of the epigastric region, extended far into the left hypochondrium. The upper surface of the right lobe presented an appearance of granulation; and when its substance was examined microscopically, it showed an excess of oil and of fibrous tissue. In the left lobe this condition was not so marked. The capsule was thickened, and firm adhesions existed between the stomach and duodenum and the liver, and bands of connective tissue were seen passing across the longitudinal fissure. The head of the pancreas felt hard, but presented no further evidences of disease. Directly over the ductus communis choledochus, and bound down upon it by adhesion, several very much enlarged glands were found. No other cause of obstruction could be discovered; certainly none existed within the duct itself, for a probe could be passed readily through its whole extent, and also into the hepatic and cystic ducts. The gall-bladder, which was not distended, contained about an ounce of viscid and olive-colored liquid. The kidneys were enlarged, and presented the microscopic appearances of an early stage of desquamative nephritis. Portions of the kidneys and of the liver were tested with Lugol's solution, but no evidences of albuminoid degeneration were found. The mucous membrane of the bowels was congested. The colon contained a large amount of matter of a brownish-red color, which had no fecal odor, and which appeared to be in large part altered blood. The spleen was about double its normal size. Its surface was covered with shreds of membrane. A small amount of a highly-colored serum was found in the pelvic cavity.

(Note from Dr. J. G. Richardson, Microscopist to the Pennsylvania Hospital.)

On microscopic examination of a thin section from the lung, the black color was seen to be due to particles of pigment, often aggregated into large masses, concealing and apparently occupying whole groups of air-cells; when isolated, these intensely black granules were observed to average about $\frac{1}{1000}$ of an inch in diameter, and to be arranged in some instances with considerable regularity upon the free surfaces of the vesicles, as though deposited from the inspired air.

I have purposely avoided giving details of the treatment, because the notes of the case are already very long, and because it consisted simply in the administration of remedies calculated to improve the general condition of the patient, and also in that of those which were from time to time indicated by special symptoms. At first slight improvement seemed to take place, but the ground gained was more than lost during his attack of erysipelas. At my first visit to the patient I was particularly struck, not merely by the prominence of the lower part of the chest and of the upper part of the abdomen, but also by the disparity between the two sides of the chest, both as regarded size and movement. Now, although this disparity was found to be less upon actual measurement than it had appeared to the eye, it seemed, when taken in connection with the physical signs recorded in the notes, and with a slight lateral curvature of the spine which was also found to exist, to lead necessarily to the conclusion that at some time during the course of his illness the patient had had a pleuritic effusion, which was now in process of absorption. A laryngoscopic examination was made, but with no very satisfactory results. The loss of the sonorous voice, which, he said, had existed for some months, rendered it certain, however, that the vocal cords were the seat of ulceration.

It was, as may be readily imagined, no easy matter to make a correct diagnosis of the condition which produced the jaundice. It was not until after repeated examinations that I could satisfy myself, and those who saw the case with me, that there was no great enlargement of the liver; and even after having settled this point the cause of the jaundice was not at once ap-

parent. The absence of great enlargement seemed to exclude from consideration both cancer and abscess of the liver, more especially as in neither of these conditions is jaundice a necessary or even frequent complication, for in 91 cases of cancer of the liver, collected by Frerichs, 52 died without ever having been jaundiced, and in 120 cases of abscess Morehead noted jaundice as present in only 5. The other diseases in which enlargement of the liver occurs to a greater or less extent, as fatty degeneration, albuminoid degeneration, and cirrhosis, are very seldom, and then only accidentally, accompanied by jaundice. After a careful review of all the symptoms presented by the case, and of its previous history, there seemed to me scarcely a doubt that the common gall-duct must, from some cause or other, be obstructed. It was very unlikely that this obstruction depended upon the impaction of gall-stones in the ducts, for throughout the whole course of his illness the patient had never suffered from hepatic colic. Of the other causes of obstruction, perihepatitis seemed to me to be the most probable, and for the following reasons: At various times the patient complained of pain in the right hypochondrium, and this pain was decidedly increased by pressure; besides this, there was a constant elevation of temperature, which showed the existence of inflammation, and the patient had evidently had an attack of right-sided pleurisy, which, it is well known, is sometimes followed by inflammation of the capsule of Glisson. Upon this view of the case, it was difficult to explain the increase of size of the liver, as an obstructed duct sooner or later leads to atrophy of this organ; but the difficulty did not seem to me insuperable, since the obstruction in this instance might have occurred subsequently to the enlargement. In fact, a reference to the notes will show that, as the case progressed, there was a little diminution in the hepatic dulness. The upper boundary of the liver in the mammary line, having been originally at the fifth rib, was, towards the close of life, not higher than the sixth. It is, therefore, very probable that contraction was going on during the time the patient was under observation.

The autopsy confirmed, to a very great extent, the correctness of the diagnosis. In addition to the perihepatitis, enlarged lymphatic glands were found pressing upon the duodenal end of the ductus communis choledochus, in such a position, however, as not to affect the portal vein or the hepatic artery, and hence the absence of all symptoms of compression of these vessels. The number of these glands was three or four. The largest one was about two inches in length, one inch in breadth at its broadest part, and about half an inch in thickness, and was bound tightly down upon the duct, so that it was necessary to make a careful dissection to separate them. The occlusion could scarcely have been complete, for there was distention neither of the gall-bladder nor of the gall-ducts within the liver. The friction sound occasionally heard in the left infra-axillary region was undoubtedly due to the coating of lymph upon the spleen.

Although enlargement of the glands in the fissure of the liver is generally included among the conditions which may give rise to jaundice, yet, if we are to judge from the number of the reported cases, it is not a very frequent cause of it, for in the twenty-one volumes of the proceedings of the Pathological Society of London I can find but three cases in which it is assigned as the principal cause. One of these is reported by Mr. Handfield Jones in vol. v., and the other two by Dr. Murchison in vol. xx. A fourth case, reported by Dr. Samuel Wilks, will be found in Guy's Hospital Reports, 3d series, vol. v. In none of these does it appear that distention of the gall-bladder was present, and its absence was probably due to the fact that the obstruction of the duct under these circumstances is less likely to be complete and more likely to be intermittent. The absence of a

pyriform tumor below the ribs in cases of jaundice from obstruction may, therefore, be, in some cases, of diagnostic importance.

MEDICAL NOTES.

BY JAMES E. REEVES, M.D.,

Wheeling, W. Va.

WHILE engaged a few months since in the preparation of the Epidemiological Record for my recently published pamphlet,* the subject of the treatment—past and present—of some of the diseases therein mentioned very naturally presented itself for consideration and study; and the following pages were at that time written with a view to their publication in the columns of the *Times*, to represent the character of medical practice and experience among West Virginia physicians.

I.—DYSENTERY.

In the treatment of dysentery various and widely different methods of practice have been employed, and with equally varying success. The calomel and opium plan—a cathartic dose of calomel in the beginning, and subsequently one or two grains of this medicine, with opium and ipecacuanha, administered every two or three hours—embracing also, very frequently, general blood-letting, was begun with; and even at the present day (bleeding from the arm perhaps omitted) this old method of practice has many confident advocates, who, when they are asked for the reason of their faith, adduce experience!

The next plan generally employed was—first, a full dose of castor oil, and then opium and calomel in small doses administered several times a day, with the view, among other things, of producing pyalism as speedily as possible.

Another plan was—first, the thorough cleaning out of the primæ viæ by a dose of sulphate of magnesia dissolved in an infusion of *peach-leaves*,—this dose to be repeated every morning, and a full dose of opium or Dover's powder at night,—and a diet of soup made of *parched* wheaten flour. This method of treatment was successfully employed in the Randolph Valley by Dr. Bosworth, of Beverly, who is now one of the oldest physicians in the State.

Another plan was the almost exclusive use of a saturated aqueous solution of the sulphate of magnesia in connection with dilute sulphuric acid, in the proportion of seven ounces of the saturated solution of the sulphate of magnesia to one ounce of the diluted acid—the formula of Dr. Henry, of Dublin—of which mixture a tablespoonful was given every hour until feculent discharges were produced; and this process was repeated every morning until convalescence was established. That it also was successful in a large number of cases, there can be no doubt. The late Dr. D. B. Dorsey, formerly of Ohio, was eminently successful in the treatment of the disease by this mode of practice; and the same plan has been pursued for many years by his son, Dr. D. B. Dorsey, Jr., recently of Fairmont, West Virginia, but now of Chillicothe, Missouri, with equally gratifying results. From the latter I have received a letter giving, in addition to some general directions suggested by their experience in the use of the remedy, the proportions employed by his father and himself, which are as follows:

Saturated Solution of Sulphate of Magnesia, fʒviiij;
Aromatic Sulphuric Acid, fʒj.

In his letter Dr. Dorsey says, "Sometimes, after adding the elixir, the mixture solidifies. This is owing to an excess of sulphate of magnesia not dissolved, but *suspended* in the water. The remedy is, therefore, the addition of a little water. I always prefer soft water.

"The dose is from one to three tablespoonfuls, given every three or four hours *until fecal evacuations are produced*. This is, in fact, the measure, and the only measure, in administering the preparation. It should be increased in quantity, and even in frequency of administration, until the fecal evacuations appear. Then the dose should be diminished at once to about one-third of the quantity previously required, and should be continued a day or two.

"While this is in use, no other remedy should be employed, except an opiate at night; as experience has shown that the ordinary routine—astrings, mercurials, etc.—only impedes the proper action of the magnesia. Of course the usual observance of exceedingly rigid regimen should not be omitted.

"Those who have best known and most used this mixture have relied on it *exclusively* in the treatment of simple dysentery; and it has never failed them in a single instance, to my knowledge."

Another plan was the strict prohibition of cathartic medicine after the exhibition of a simple dose of castor oil, to which, usually, ten or twenty drops of laudanum were added to restrain or prevent its violent action, entire reliance being placed on large doses of opium and ipecacuanha. This method of practice gave much encouragement, and found a large number of advocates.

The following is the plan of treatment which I have myself been in the habit of employing during the last ten years in the management of dysentery, and which, indeed, has given me so much satisfaction that I could not be induced to exchange it for any other with which I am acquainted:

I. If constipation have preceded the attack, and the dejections are scybalous in character, a dose of castor oil, with or without ten drops of laudanum, is administered.

II. If preceded by diarrhœa, neither cathartics nor laxatives are to be administered, but the following powder is given in a teaspoonful of the tincture of cinnamon every four or six hours:

℞ Bismuth. Subnit., gr. xvj-xxx;
Cretæ præparatæ, gr. x-xvj;
Pulv. Ipecac. comp., gr. iij-vj. M.

One-half to one grain of powdered opium may be either added to or substituted for the Dover's powder.

III. To diminish febrile heat, and control the pulse, the solution of acetate of ammonia in tablespoonful doses, with or without the addition of from one to four drops of Norwood's tincture of veratrum viride, may be given every three or four hours.

IV. Cold water may be allowed as a drink, but should be taken only in small quantities at a time. The diet should consist of boiled milk and bread.

V. To relieve straining and griping, if the bismuth powders fail to secure relief, suppositories containing two grains of acetate of lead and half a grain of acetate of morphia should be employed. For the relief of strangury, first inject a small quantity of cold water into the rectum, and then introduce the suppository.

VI. Rest in bed is to be strictly observed: no attempt should be made, from first to last, to sit during an effort at stool or when emptying the bladder; and herein lies the secret of success in treatment. In a word, *posture* is everything in the successful management of dysentery.

(To be continued.)

* The Health and Wealth of the City of Wheeling, including its Physical and Medical Topography; also General Remarks on the Natural Resources of West Virginia. By James E. Reeves, M.D., City Health Officer. Second edition, enlarged and illustrated. Octavo, pp. 158. Baltimore, 1871.

A CASE OF POISONING BY STRYCHNIA

SUCCESSFULLY TREATED WITH BROMIDE OF POTASSIUM.

BY CEPHAS L. BARD, M.D.,

San Buenaventura, California.

THE following history of a case of poisoning by strychnia, and its successful treatment by bromide of potassium, will illustrate the wonderfully antagonistic action of these two drugs, and the efficacy of the latter as an antidote to the former:

Strychnia was placed in a sack of flour belonging to George Starr, aged 35, a ranchero, living in the Cañon de Santa Paula, Santa Barbara County, California, by some unknown enemy, during the morning of February 6, 1871. On the evening of the same day this flour was made into cakes, some of which were eaten by Starr. A few moments afterwards his attention was called to the fact that something was wrong, by the powerful contractions of the muscles of the neck, especially the sterno-cleido-mastoids. Fully realizing his position, he at once determined to go to a neighbor's house, in reaching which he had, however, the greatest difficulty, the muscles of his legs frequently contracting with so much force that he was thrown to the ground. Sweet oil and the whites of eggs were freely given, and their use persisted in till my arrival, some hours later. No emetics were given and no vomiting whatever occurred prior to or after my arrival. The patient presented the following symptoms when I saw him: muscles of legs and arms rigidly flexed; slight opisthotonos; great dyspnoea; skin livid, and complete coldness of entire surface of body; jaws fixed, lips retracted, the teeth covered with frothy saliva; deglutition almost impossible; mind clear. The patient was thoroughly aware of his condition. The contractions were clonic in character, but the relaxations of short duration. The mouth was only opened with the greatest difficulty, and when medicine was forced into it the spoon was seized by the teeth. Having seen the report of a very similar case in the *American Journal of the Medical Sciences* for October, 1870, which was successfully treated by Dr. Charles B. Gillespie with the bromide of potassium, and knowing that this drug exerts a sedative action on the excito-motor functions of the spinal marrow by diminishing the capillary circulation in this organ, I concluded to rely upon it as an antidote. Dissolving an ounce of the salt in a cup of water, I gave the patient half of it at once, and continued its use in smaller doses for an hour or so afterwards. Its good effects were shown in a diminution of the reflex excitability, and in the relief of the spasmodic action of the muscles of the pharynx, the difficulty of deglutition being consequently very much lessened. In less than thirty minutes after the administration of the first dose, complete relaxation of the whole body, accompanied by a return of warmth and by profuse perspiration, occurred; and on the following day (less than twenty-four hours from the time of taking the poison) he arose from his bed, perfectly free from any unpleasant effects of either the poison or its antidote, with the exception of paralysis of the intestines, which finally yielded to the use of the bromide.

In the case reported by Dr. Gillespie the poisoning was produced by three grains of strychnia; but in the case just reported a much larger quantity must have been taken, since the symptoms were more marked, and since a chemical analysis of the flour showed that it contained a large amount of strychnia. A piece of one of the cakes, of which Starr had eaten, was moreover given to a dog, and produced death in twenty minutes. The oil which was swallowed in large draughts prior to the administration of the bromide acted beneficially only, in my opinion, by retarding the absorption of the poison, as the symptoms at my arrival were more distressing than at any previous time. I am ignorant of any case where oil, unless acting as an emetic or followed by an emetic, has been found to be a complete antidote. From my experience in this case I am convinced that

complete reliance can be placed on the power of the bromide as an antidote to strychnia, and that the effects of these two drugs are as mutually antagonistic as are those of opium and belladonna.

ERRATUM.—On page 294, second column, line 16, of the last number (16) of the *Medical Times*, instead of 32 grammes, read 12 grammes.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF PROF. D. HAYES AGNEW, M.D.

Reported by James C. Wilson, M.D.

TRAUMATIC STRICTURE OF THE URETHRA—ABSCESS OF THE PROSTATE—DEATH—AUTOPSY.

THE early notes of the case of J. C. having been reported in Dr. W. Hunt's paper on "Traumatic Rupture of the Urethra," which appeared in the number of this journal for February 15, we present the following summary of what was then published.

The stricture in this case was the result of a severe injury of the perineum, received by being caught between two coal-cars, which he was unloading at the time. Some improvement in the condition of his urethra was effected, but, symptoms of blood-poisoning having developed themselves, he was advised to leave the hospital, and to return when his general health had improved.

He was readmitted, January 4, 1871, in pretty good general health. The anterior strictures, which had somewhat contracted, were again dilated. His health, however, again became impaired, and in a short time all surgical interference was desisted from.

April 7.—Complains of irregular chills, followed by fever and occasional sweats. Is very weak; has at times diarrhoea; expression is anxious and troubled; does not complain of pain; there is great tenderness in perineum; skin dry, harsh, earthy in color. A thick, milky urine, loaded with pus, escapes continually from the fistula, and dribbles from the penis. It is highly albuminous, and contains abundant phosphates, but no renal tube-casts are seen.

The pulse is small, compressible, and ranges between 100 and 120.

Temperature between 99° and 100°.

April 14.—Nocturnal delirium and subsultus tendinum have been superadded to the symptoms.

April 21.—Death.

The autopsy, made thirty-one hours after death, disclosed an impermeable stricture, five lines in length, immediately in front of the membranous portion of the urethra, with laceration of the wall of the canal anterior to it, and tunnelling of the surrounding tissues. The bladder was hypertrophied, and the ureters and the pelves of the kidneys were dilated, and contained a milky, turbid urine. The prostate gland was about the size of a small orange, and the seat of an abscess which involved its entire substance and encircled the prostatic portion of the urethra. The perineal tissues were infiltrated with urine.

No abscess was found in any other part of the body. No collection of pus in any joint or tissue.

INCISED AND PUNCTURED WOUNDS.

Case 1.—J. H., æt. 23, a cigar-maker by occupation, was admitted to the hospital Sunday evening, April 23, with an incised wound, two inches in length, on the outer aspect of his left arm, over the lower portion of the deltoid, and in a direction at right angles to the fibres of that muscle. A tipsy companion seized a knife used for cutting bread in a beer-saloon, and, making a pass at him in sport, inflicted the wound. It is

very superficial, extending through the deep fascia, and dividing a few of the fibres of the deltoid. The cephalic vein is just beyond the anterior extremity, and barely escaped. The edges of this wound having been adjusted by means of adhesive strips, the main indication is to keep the arm at rest; though this man's arm and hand have been confined by a bandage extending around his body, the wound gapes, and must heal by granulation. Union by the first intention is not likely to occur in such cases as this, because it is almost impossible to keep the parts at rest.

[May 13.—The wound has healed, and the man is to-day discharged from the hospital.]

Case II.—John Hertzner, æt. 19, a barber; admitted April 30. The night before admission he received a wound on the inner surface of his right arm, a short distance above the condyle. This wound, as you observe, is oblique, and presents the appearance of being both a punctured and an incised wound; that is, the knife has been thrust into the tissues and then drawn out on its edge. It lies between the course of the ulnar nerve and that of the brachial artery, and penetrates the ligament of the joint, allowing the escape of synovia from it: there are no bursæ in this situation that could have been injured, and thus have given rise to the escape of such a thin, soapy, lubricating fluid. The hemorrhage from this cut was abundant, and the patient lost a good deal of blood before admission, although Monsel's salt in powder had been applied, with compresses. The wound was cleansed as well as possible, and then slightly enlarged in order to reach the bleeding vessels. Two ligatures were applied, without doubt to branches of the recurrent ulnar and the anastomotica arteries; it now being the seventh day, these come away, you perceive, with the slightest traction. The lips were brought in contact by sutures of silver wire and adhesive plaster, and the arm put at rest upon an anterior right-angled splint. The wound is now united at its ends, but that portion which was treated with the powder of the persulphate of iron has failed to unite at any point. Many of the wounds that come into this house are found to have been packed with this preparation before admission, to arrest hemorrhage. This is very bad surgery, and should generally be avoided. Monsel's solution is very useful as a styptic and as a disinfectant; and where it is not desirable that wounds should heal by what is called first intention, pieces of lint moistened with it constitute a valuable dressing; but the powdered salt should never be applied to any wound.

The wound is dressed now with adhesive plaster and ung. zinci oxidii, thinly spread upon old muslin or linen, a favorite dressing. The angle of the splint is to be changed from time to time, and the arm kept otherwise at rest. There is danger of a stiff joint.

[May 13.—The signs of joint trouble are now very slight; there is motion without pain through a considerable arc. Synovia no longer escapes from the wound, which is healing by granulation. The splint is still retained, its angle being changed from day to day, and the joint freely moved at the time of changing the dressings.]

Case III.—J. C., æt. 26, peddler; admitted May 4. This man, in a drunken quarrel, received a stab on the right side of the neck, just below the lobe of the ear. The wound is transverse and scarcely three-fourths of an inch in length; it involves the substance of the parotid gland. There was considerable bleeding before his admission, doubtless from the vessels of the gland. This was arrested, as in the preceding case, by the use of some styptic, and plugging the wound with lint. On his coming into the hospital, the plug of lint was removed, and the edges of the wound were drawn together by a suture of silver wire and strips of sticking-plaster, and a compress of patent lint firmly applied. No bleeding has occurred. Since the receipt of the injury the patient's voice has lost its property of sonorosity; he is unable to speak above a whisper. This is probably due to pressure of inflammatory products upon the superior laryngeal nerve, which is probably not directly involved in the injury. There is a good deal of stuffing of the tissues of the neck; and the right side of the palate and right tonsil are congested and enlarged. There has been some difficulty in deglutition. The probable result of such an injury in this situation will be a salivary fis-

tula. You observe this thin discharge now escaping from the wound; it is saliva, the secretion of the parotid gland, no doubt; therefore in the treatment we should endeavor to close the wound tightly at once, and seal it with gauze and collodion, the white-of-egg dressing, or something that will be impervious to air, and to secure, if possible, direct union. A fistulous opening communicating with the gland is very difficult to heal, and demands almost invariably operative interference.

SYPHILITIC ULCER OF THE TONGUE.

John Barlow, æt. 28, born in England, a laborer; admitted May 2. You observe upon this man's tongue, slightly to the left of the median line, an oblong, deep ulcer, into which one could insert the tip of the little finger. The bottom of this ulcer is covered with a foul, unhealthy-looking lymph mingled with pus; its sides are steep, and it is surrounded by an elevated ridge of indurated tissue, and by mucous membrane of a deeper color than that upon the other portions of the tongue. The induration extends forward towards the tip of the organ, and across the middle line to where, on the right side, you perceive this elongated crack or fissure; it is irregularly circumscribed; but, on examining it, we find that it is by no means so dense as its appearance would lead us to suppose, although it is of firm consistence; neither is the ulcer itself quite so deep as it at first sight appears: its abrupt sides, and the elevation of the tissue immediately surrounding it, give it a deceptive appearance in this respect. A slight fetor attends it, but it is not accompanied by pain. There is no enlargement of the glands beneath the tongue, nor can we find that any of the lymphatics are enlarged. This ulcer can arise from only two conditions. It is either cancerous or syphilitic, and it is of the utmost importance to make a correct diagnosis in reference both to treatment and to prognosis. Indeed, in cases where it would be otherwise impossible to decide, the result of treatment enables us to pronounce decidedly in regard to the character of the disease; for the syphilitic ulcer is slow in its progress, and usually yields promptly to treatment, whereas cancer of the tongue extends with rapidity, and is uninfluenced by treatment.

The patient before you is a well-nourished and healthy-looking man; his skin is smooth and clear, and his complexion good. He states that his general health has always been good, that his parents were healthy, and that he knows of no cancerous disease in any relation. He gives us the following account of himself, which, with the evidence already laid before you, enables us to decide pretty certainly that the trouble is of a specific origin. In 1862—nine years ago—he contracted a single chancre, for which he received local and constitutional treatment; the sore healed promptly, and left a slight cicatrix, which is still to be seen on the glans penis; no bubo nor constitutional manifestations followed. Two years ago an ulcer, similar to this one, appeared on his tongue, at the point where this little crack exists. It was treated in an English infirmary, and in a short time got well, and remained so until about six weeks ago, when the induration reappeared and ran on rapidly to ulceration. This man is, then, laboring under syphilitic disease, of which the history of the primary trouble is clear; under treatment he has escaped the secondaries, and now, after a lapse of years, presents one of the manifestations of tertiary disease.

The treatment will be potassii iodidi gr. x, s. t. d., with an application morning and evening of a two-grain solution of the bichloride of mercury to the ulcer. Should this fail, it may be touched with nitric acid.

May 13.—The patient is again before you. The ulcer has disappeared; in its place you observe a slight fissure on the surface of the tongue; the deep purplish-red color is gone, and the induration is barely perceptible. The man is nearly well. Ulcers on the tongue, whatever their nature, heal in this manner; at first they diminish in diameter, and contract from side to side, while the length remains the same, until at last a little crack or fissure such as this is seen. This often persists, without giving any trouble, for a long time, and finally disappears. Ulcers on this organ rarely, if ever, heal by formation of cicatricial tissue circularly around their edges, as do ulcers on the limbs and in other portions of the body.

JEFFERSON MEDICAL COLLEGE.

CLINIC OF PROFESSOR GROSS, MAY 15, 1871

Reported by Dr. Ralph M. Townsend.

FUNGUS OF THE EAR.

A YOUNG, unmarried girl, aged eighteen years, presented herself at the clinic, complaining of a fetid discharge from her left ear, which has existed since early childhood. The hearing by this ear is almost gone, though, to the best of the patient's remembrance, none of the bones of the ear have been discharged. She formerly suffered a great deal of pain in the part, but this has now disappeared. The teeth on the affected side are unsound. Examination revealed the presence of a profuse discharge, from the middle of which, like an island, stood forth a mass of granulations, not unlike those which form the test-like process around the sinus communicating with dead bone.

The lecturer stated that these growths are always of a secondary nature, and cannot be permanently cured until the cause, under the influence of which they are developed, has been effectually eradicated. The first object of the treatment, therefore, is to get rid of the primary affection. In the present case there is undoubtedly disease of some portion of the temporal bone.

[The exuberant growth was here twisted off with a delicate pair of forceps; and a mild injection, composed of one grain of the permanganate of potassa to the ounce of water, directed to be injected into the ear three times daily. As the mastoid cells communicate with the middle ear, the establishment of an issue over the mastoid process of the temporal bone was also laid down as an essential part of the treatment.]

Internally this patient was ordered the use of the following remedies, in solution, three times daily:

R Syr. Ferri Iodid., gtt. xv;
Potass. Iodid., grs. iij;
Hydrarg. Chlor. Corros., gr. 1-12.—R. M. T.]

FOREIGN BODY IN THE NOSE.

Ann Sullivan, an unkempt, mischievous-looking child, aged five years, came to the clinic with a discharge of disagreeable odor from the right nostril, which has lasted for a year. On probing there seemed to be a roughness, as if the inferior turbinated bone was diseased. On grasping what seemed to be the denuded bone, at the same time exercising slight traction, a foreign body, which on washing proved to be a piece of cork, was brought away.

Professor Gross stated that whenever children between the ages of one and five years, laboring under these symptoms, were brought to one, the presence of a foreign body might be suspected; since part of the amusement of children often consists in the introduction of foreign bodies into the nasal passages.

Whatever the foreign bodies may be,—peas, beans, pellets of paper, or buttons,—they should be extracted as speedily as possible. If the patient be of sufficient age to assist the surgeon, voluntary effort, or sneezing induced by taking snuff, will often dislodge the substance. Professor Gross also exhibited a little instrument which he had devised for extracting foreign bodies from the ear or nose, by means of which, in competent hands, their removal is much facilitated. Two instances were cited of other ways of removing foreign bodies,—one in which an emetic was given, the mouth being tightly closed with a handkerchief at the moment of emesis, and the other where the foreign body, a hairpin, was pushed back into the posterior nares and then extracted through the mouth.

As a rule, no anæsthetic is required in extracting foreign bodies from the nose.

GANGLIA OF SHEATHS OF EXTENSOR TENDONS OF TOES, WITH RICE BODIES.

Mary Keenan, aged 4½ years, has a lobulated swelling occupying the front of the right ankle and slightly overlapping the dorsal surface of the foot. The tumor totally effaces the natural contour of the parts. It fluctuates, has a peculiar grating sensation when its walls are rubbed under the fingers, and has existed for six months. The tumor is elastic, perfectly movable, free from pain, and unaccompanied by any discoloration of the skin. A feeling of stiffness is complained of in the extensor tendons over which it is situated. This tumor is the result of a series of ganglia—small, circumscribed cysts situated along the course of the tendon—being inflamed, along with an accumulation of the natural secretions of the part.

Treatment consists in rupturing the ganglia and scattering their contents into the surrounding cellular tissue, or, by a subcutaneous incision, opening the sac, evacuating its contents, at the same time scarifying its interior, and then dressing the parts with compress and bandage, having previously painted them over with the dilute tincture of iodine.

[Chloroform was now administered, a delicate bistoury was subcutaneously introduced into the sac, and its contents were squeezed out. The latter consisted of a ropy-looking fluid, somewhat similar to a solution of gum Arabic, containing a great number of small bodies resembling rice or cucumber seed.—R. M. T.]

These rice bodies first have their origin in an effusion of lymph, which after a time becomes organized and attached to the inner surface of the sac. It afterwards becomes separated in consequence of the continual friction of the tendon to which the sac is connected, and assumes the form of the bodies evacuated from this tumor.

THE ACTION OF MERCURY ON THE LIVER.—In a paper read before the Medico-Chirurgical Society of Edinburgh (*Edin. Med. Jour.*, April, 1871) Dr. Thos. R. Fraser reviews the whole subject of the cholagogue action of mercury. After considering various doctrines as to the nature of this action, he says that all that has been actually demonstrated is the increased flow of bile after the administration of mercury. Dr. Fraser believes that this is supported by the following arguments:

1. Certain characters of the alvine dejections imply an absence or diminution of bile, and these characters are present in various diseases.

2. In many of these diseases mercury restores the alvine dejections to their normal condition, or produces in them, as well as in normal dejections, certain characteristic appearances.

3. The characteristic appearances caused in the alvine dejections by the administration of mercury are due to the presence of bile constituents.

The appearances caused by mercury cannot be due, as suggested by Murchison, to the merely purgative action of the drug, whereby the intestinal contents are so rapidly carried to the rectum that the modification and absorption of their bile constituents which occur in normal digestion are prevented, because a similar effect is not found to follow the use of other purgatives, and because, in constipation, where the passage of the intestinal contents is undoubtedly retarded, there need not be clay-colored stools, while, on the other hand, in diarrhoea the stools may be pale or clay-colored.

These views are opposed to those recently promulgated by the Edinburgh committee, and Dr. Fraser is disposed to believe that, in the vivisections made by the committee, several nerves, ramifying in the substance of the common duct and in the surrounding tissues, were necessarily divided, and that it may be that by these nerves an influence is conveyed to the liver by the action of mercury.

DIAGNOSIS BY THE SENSE OF SMELL.—At the last meeting of the Clinical Society (*Brit. Med. Journal*, March 4, 1871) considerable interest was excited by the President's remarks on the subject of the diagnosis of syphilis and other diseases by the sense of smell, a subject to which he had paid some attention, and which, he believed, opened up a field for much future inquiry. Numerous medical writers have casually touched on this subject; and it may be interesting to note that, so long as thirty years ago, Dr. Stokes, of Dublin, called attention to the valuable aid which he believed the sense of smell would be found to afford in the diagnosis of disease: in fact, he expressed the opinion that the nose might, from the mere odor of the surface of the body, be able to detect the difference between pneumonia and bronchitis.

THE INFLUENCE OF THE ATMOSPHERE UPON THE PHYSICAL SIGNS.—In the April number of the *Georgia Medical Companion*, Dr. J. G. Thomas attempts to explain the fact that a slight degree of dulness or of elevation of pitch is at times more readily detected than at others, by attributing it to the variations in the conducting power of the atmosphere.

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EDITORIAL.

MODERN THERAPEUTICS.

No. II.

IN a former editorial upon this subject we pointed out the failure of simple empiricism as a method of therapeutic study, and stated that there is a higher and more rational way. To-day we shall discuss this latter plan. The method dictated by common sense, and the only logical procedure, is, when anything is to be accomplished, to determine, first, exactly what is to be done, and, secondly, to learn the means at command. The mechanic, understanding the use and power of his instruments, is able to produce work only when he has first formed a definite idea of that work. The engineer must know his designs and his means before he can act successfully. The rule indicated is indeed the true law of successful human effort. In medicine, however, it was for a long time utterly impossible to act in accordance with it. There being no real understanding of diseased or healthy action, and consequently no knowledge of what ought to be done in any case, the gropings of a more or less blind experience were the only possible way of advancement. Though this is true, the law holds none the less firmly, and therapeutics can rise to its true dignity only by conforming to it.

The essential groundwork for therapeutics is, then, a knowledge of what interference is needed in the various diseases which meet us every day. It is evident such knowledge cannot be obtained except by a thorough study of the natural history of disease uninfluenced by drugs. The number of factors that enter into the physician's problems are at best appalling; but when to these are added the unknown potencies called drugs, the complication becomes infinite. There must be a study of diseased action simplified to the utmost limit, not artificially complicated by the act of the student. Few evils in this world are absolutely unmitigated, and to homœopathy may be awarded the credit of having demonstrated the power of unaided nature to cure disease in the great majority of cases. Now, evidently the great desideratum is to know *how* nature cures diseases. There are apparently, if not certainly, in most acute disorders, two distinct states or stages,—in the one of which the various processes seem to be directed towards the alteration of normal structure, *i.e.* towards death; in the other, the undoing of what has been done, and the restoring and building up of normal conditions, seem to be the objects aimed at. The first point of investiga-

tion in any disease is to determine what processes are destructive, belonging to the first class, and what, belonging to the second class, are reconstructive. Thus, apparently, in sthenic pneumonia all the changes wrought in the first stage are evil, and the processes are therefore to be stopped, if possible, whilst in the second they are reconstructive, and are, if possible, to be aided; whereas in fevers it is very probable that all the processes recognized are the result of changes already induced or of a poison fully absorbed, and, being beneficial in their intent, are to be aided or guided. Having once determined the intent of the processes, the next point for inquiry is their nature, whether they are mere excitations or depressions of normal functions, whether they are perversions of such functions, or whether they are *sui generis*.

All these points, it is evident, must be determined before rational therapeutics can commence its work. Again, it is very conceivable, indeed probable, that processes in themselves reconstructive may become harmful by excess; and this, too, must be determined before the work is done.

If these points were all fully made out,—if we knew with certainty the intent and nature of the various diseased actions,—the problems of rational therapeutics would become comparatively plain. It is not really the therapist, so much as the pathologist, who is at present at fault. The moment the laws of morbid and healthy functions are fully determined, that moment can therapeutics hope soon to be among the true sciences.

Such are the requirements of the first conditions of the great law,—the text of the present editorial. They can never be fully complied with, but can be indefinitely approached, and it is not unreasonable to hope will be, some day, sufficiently fulfilled for practical results.

The next element of the law is the knowledge of the means and instruments. Under these two heads are included first and prominently hygienic measures, and secondarily drugs. He who does not recognize the paramount importance of the first of these had better never meddle with the second. We do not propose, however, to say more upon hygienic measures, but pass immediately to drugs.

Empiricism investigates only what may be called the pathological action of drugs. That a medicine in a fever case caused an abatement in the symptoms, and is therefore to be used again, comprises all the knowledge desired. The rational therapist, on the other hand, knows that it is as hopeless to attempt to gauge the action of a medicine in disease without a knowledge of its action in health, as to study morbid processes without knowing the functions of health. To attempt to study the physiological powers of a remedy by its administration to diseased organisms is to introduce infinite elements of doubt into a problem already complicated almost beyond human skill. Beliefs, theories, and systems founded upon such investigations must ever be but houses built upon the sand, waiting merely for the ebbing and flowing tides of opinion to sweep them away. Therapeutical studies in disease may be

very useful as explaining and corroborating knowledge otherwise obtained, but ought never to be primary. There are, indeed, but two possible methods of primary study of this subject, namely, experimentation upon healthy men and experimentation upon the lower animals.

There is a marked tendency among certain clinicians, who have never experimented themselves, to undervalue and sneer at all investigations made upon the lower animals. In his recent work upon the present state of therapeutics, Dr. Rogers reasserts this belief, and also maintains that the rational method of studying medicines is by Hahnemannian provings. To this we most emphatically say no. Of all utterly deceptive methods of research, this merits the palm. If a small dose be taken, the informed imagination conjures up a host of strange guests, and symptoms innumerable come trooping in at its bidding. Any one who has examined those most puerile of puerilities, the provings with which the contemporaneous Hahnemannian records so abound, needs no further proof of this. It is not long since we studied a list of some two hundred and fifty—if our memory serves us right—symptoms detailed as following an innocent potation of carbolic-acid water. On the other hand, if the dose taken be at all toxic, the waiting for the outburst of dangerous symptoms is not, in the nervous Anglo-Saxon, peculiarly conducive to an apt frame of mind for observation. We speak feelingly on this point. We have tried it; and because Dr. Rogers has not, is probably the reason he recommends it. Common sense and experience alike indicate that provings are not only dangerous, but are really of little value. If any one doubts common sense, let him try experience, and we will say, Amen, and God speed you.

The investigation of remedial physiology appears to us to demand, it is true, experiments made upon healthy men; but these experiments are more valuable when performed upon those ignorant of therapeutics, and by those whose mental acts are not disturbed by drugs or by emotional influences. Any knowledge, however, obtained simply by such experiments as are justifiable upon human beings, must forever remain crude, uncertain, and scanty. This is so evident that it would seem needless to substantiate it by instances, had not writers of deserved repute insisted upon the reverse. There can be no doubt that the vaso-motor nervous system plays a very important rôle in diseased as well as healthy action, and yet without experiments upon animals it is impossible to determine even what drugs affect it, to say nothing of the method of their action upon it. We may guess that ergot and belladonna do act upon this nervous system, but, to make our guess of any more value than a mere wild surmise, investigations upon animals are necessary. Even a cardiac stimulant cannot be counted upon until it has been tried in the laboratory of physiologists. Clinicians have recently insisted that nitrite of amyl is a cardiac stimulant, whereas the truth is that it acts directly upon the heart as a powerful sedative, although it may exert

an early, but indirect, stimulant effect on the viscus by lessening the oxygenation of the nerve-tissues, and calling thereby the heart into action for a more rapid supply of blood.

Want of time and space will not allow of our further establishing the point in question. The blind, stricken, halting systems of modern therapeutical writers, the wild discord of opinion in regard to our longest-known drugs, are like the skeletons by the wayside, and alas for us if we cannot read their lessons of wrecked endeavor!

The old trodden pathways will yield us no fruit; out into the comparatively untried fields of experimentation we must go, never doubting of the reward of an abundant harvest. Strange though it may seem, the drugs best understood are those of most recent discovery. What do we really know in regard to the physiological action of opium, our great handmaiden for centuries? Almost nothing; whilst of Calabar bean, the acquaintance of a decade, we know almost everything. What is the reason, but that in regard to the former we have been floundering on in the old ways, whilst the latter has been studied by means of animal experimentation?

That there are difficulties in such experiments none will deny, and chiefest among them is, no doubt, the fact that the same drug often influences different animals so differently.

We cannot believe, however, that these agents in this respect differ from all other created things in being freed from law, and doubt not but that underlying and existing amidst all the apparent confusion are great principles, which, if once grasped, would throw a flood of light upon practical therapeutics. Sometimes in the far horizon even now we think we can catch gleams of great truths, too distant and faint to be distinctly or certainly recognized, yet full of portent for the future.

There are few things so embarrassing to the practitioners as idiosyncrasies. "One man's meat is another man's poison" is the popular recognition of a most anomalous fact. It is not a great many years since the irregularities in the distribution of the human arteries were apparently as lawless and causeless as are idiosyncrasies at present. But now it is well known that the former are but reversions to original types, each abnormality in man being a normal distribution in some lower animal.

Startled by the strange coincidences every now and then met with, we have sometimes dreamed that human idiosyncrasies in regard to drugs are often nothing but similar reversions, each peculiarity in man being the normal susceptibility in some lower animal.

A more important because more certain fact is that those parts of the system which are closely similar in organization and function in different animals are mostly similarly influenced in the different species, and that those which differ are differently affected in the different species. Take as an example the heart, an organ whose function, activity, and nervous supply are almost everywhere the same among the mammalia, and how similarly do viridia, veratria, and the other "heart-

alkaloids" act on the different species! The same is true of the spinal cord and its nerves. Their functions scarcely vary, nor do their susceptibilities. Woorara never fails to paralyze, nor strychnia to convulse.

On the other hand, the development and functions of the cerebrum differ in every possible degree; and how notorious are the varying effects of those alkaloids that influence it chiefly, such as morphia and atropia! The structure and functions of the digestive tract are widely dissimilar in the omnivora, herbivora, carnivora, ruminants, etc.; and here again we find the same differences in the action of medicines. As an instance, it is only necessary to mention elaterium, an eighth of a grain of which purges man most actively, whilst when given to the dog by the grain it appears to be inert.

Experiments upon animals are, however, by no means simple problems; they must be worked out with care and thought, and the lack of these in some investigations has thrown disrepute upon the method. Patience, carefulness, and brains are as necessary here as anywhere; false results and conclusions must often come even to the best; but we do believe that by the aid of the method of study upon animals modern therapeutics has already entered upon a new life, and that the now faint dawn-streaks shall widen and deepen until they flood us with a noontide splendor.

DR. STILLÉ'S ADDRESS.

It requires the exercise of no little ingenuity on the part of the President of the American Medical Association to avoid, in the annual address which is expected from him, the discussion of subjects already hackneyed by frequent repetition, or to present these in such a way as to be attractive to his hearers. For this reason the addresses of the various Presidents have been characterized by a sameness which has undoubtedly detracted from the effect they might otherwise have produced. Dr. Stillé has been too much identified with the party of progress in the matter of medical education to ignore the subject; he has, therefore, devoted a large portion of his address to it. Successive Presidents have pointed out year after year the defects in medical education in this country, and the means by which these could best be obviated. Dr. Stillé has done the same, but he has done it so well that he seems to have invested the subject with fresh interest. Although much remains to be accomplished, he believes that the efforts of the association have not been entirely without fruit. "Whoever," he says, "is acquainted with the medical students of thirty or forty years ago, and their opportunities for gaining knowledge, must admit that both have greatly risen in the intellectual scale. Even within the limits of the official curriculum, although the course of lectures may bear the same name, they no longer represent the same things." The great obstacle to improvement has been the rivalry which has hitherto existed among the different schools, a rivalry the effect of which is to prevent any of them from increasing its standard for graduation.

The number of medical colleges in this country far exceeds the wants of the population. In the single city of New York there are as many schools of medicine with power to confer degrees as there are in all of France; and Germany, Great Britain and Ireland scarcely contain as many as may be found within the limits of the United States.

The part of Dr. Stillé's address which will excite most attention is that which treats of the woman question. He is evidently no believer in woman's peculiar fitness to practise medicine. We will let him, however, speak for himself.

"Women," he says, "may possibly become persuasive preachers, or even safe practitioners of domestic medicine, but learned and subtle divines, great lawyers, and scientific physicians, never. To reach such an eminence, a knowledge of principles is necessary, a power of eliminating the essential from the accidental, of distinguishing plausible falsehood from genuine truth; and that power has been denied them. It seems very probable that if woman could be made fully to comprehend the difficulties of the professional career, and the vastness and complexity of medical science and art, she would be less eager to become a physician. For her error in this respect physicians are much to blame. It is remarkable that in proportion to the scientific elevation of the medical profession in any place are the female candidates for its honors few in number. They are rare indeed in Paris, London, Vienna, or Berlin, but form quite a phalanx in Edinburgh and Zurich, and in this country swarm through every avenue to the coveted goal. On the continent of Europe they are not excluded either by prejudice or law, and it is, therefore, to be presumed that in comparing themselves with the physicians around them, they are deterred by a sense of incapacity, which perhaps there is less reason for our ambitious countrywomen to feel."

Women have nevertheless the right to study medicine, and to practise it if they can find patients willing to intrust themselves to their care, and have claims upon professional courtesy and assistance, which, Dr. Stillé thinks, should be recognized, provided, however, that in their attempts to obtain a medical education for themselves they do not interfere with its acquirement by male students; and consequently their claims to be admitted to the medical lectures of the schools or hospitals, whenever their presence causes embarrassment to the teacher or restrains his liberty of illustration, cannot be allowed.

There are other matters alluded to in the address, to which at present we have not time to refer; perhaps in some future number we will make them the subject of editorial comment.

NOT APPRECIATED.

WE published, a few weeks since, a communication headed "Microscopical Memoranda, by Dr. Newlenz." So broad was the burlesque contained in every line of it that there seemed room for doubt whether, good as it was, it ought to find admission into the columns of a scientific journal; and only after some deliberation did we decide to let our readers share in the hearty amusement it had afforded us.

We little thought how laughable a supplement the joke was to have. A critic in an "Eclectic" contemporary seriously "shows up" the *soi-disant* Dr. Newlenz

with his one-seventieth objective, his eccentric parallel-opiped, his test-object containing 147,229,073 lines to the inch, and his 20,000 hour-long examinations in a year, and winds up thus:

"We are surprised that the article, which is plainly an advertisement, should receive serious attention from the excellent journal in which it appears."

TRANSACTIONS OF SOCIETIES.

REPORT OF THE PROCEEDINGS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA.

A T a stated meeting of the Pathological Society, held April 27, 1871, John Ashhurst, Jr., M.D., in the chair, Dr. E. RICHARDSON exhibited a specimen of *hydrocele of the neck*, removed at the University of Pennsylvania, by Prof. Agnew, April 26, 1871, from Mrs. H., æt. 29.

A growth appeared upon the left side of the neck, posterior to the lower portion of the sterno-cleido-mastoid muscle, some time in July last, which was then attended by so little sensation that it was first noticed by her sister. The growth has since that time steadily increased, though more rapidly during the last two months, and for the last four months has been attended by an aching—or, as the patient herself expressed it, "a dragging"—pain.

The tumor at the time of operation extended from the clavicle upwards, and from the sterno-cleido-mastoid muscle posteriorly, and measured over its convex surface $4\frac{1}{2}$ inches vertically and 6 inches transversely. It gave a distinct sense of fluctuation, and by transmitted light was found to be translucent. The skin moved freely over it. The tumor had been treated by irregular practitioners, by application of tr. iodine to the skin, etc., for some months. The operation was performed by making an S-shaped incision through the skin, dissecting it off, cutting through the attenuated platysma myoides and deep fascia, and freeing the tumor from its attachments beneath. It was found to extend under the sterno-cleido-mastoid nearly to the carotid artery anteriorly, and nearly to the subclavian below. The transversalis colli was freely exposed beneath on the removal of the tumor. The walls of the cyst were so delicate that notwithstanding the most careful manipulation they were ruptured during the operation, and about four ounces of a clear yellow fluid escaped, with a little opaque creamy fluid at the bottom of the cyst, giving evidence of lymphatic origin.

Dr. J. H. HUTCHINSON presented, for Dr. O. H. ALLIS, the specimens from a case of *pseudo-membranous bronchitis*, in which tracheotomy had been performed.

The history was that usual in cases of pseudo-membranous laryngitis, the illness beginning April 16, and gradually increasing in severity until noon of the 21st, when the labored respiration and rapidly sinking condition were thought to demand an operation for their relief. The child did well until early on Sunday the 23d, when it began to sink, and died the next day,—sixty hours after the operation.

At the post-mortem examination, sixteen hours after death, the larynx and upper portion of the trachea were found mottled with white patches, which were not extensive and could not be said to constitute membrane. In the lower half of the trachea and sending prolongations into the bronchi was a distinct membrane, easily detached, and occupying about half the periphery of the tube. The fact that the membrane was thickest and firmest in the bronchi (especially in the left bronchus), taken in connection with the loss of voice only on the fifth day, would point to this region as the origin of the disease. Both lungs bore unmistakable evidence of circumscribed pneumonia.

Dr. J. S. PARRY exhibited the body of a boy who was the subject of *general tuberculosis*, involving the *meninges and substance of the brain, the cerebellum, left lung, and cervical and dorsal vertebrae*; there was also *right psoas abscess*, and *insufficiency of the mitral and thickening of the aortic valves*.

The boy was seven years old, and was admitted to the Philadelphia Hospital, July 28, 1870, with an appearance of moderate health, but presenting enlargement of the glands of the neck, a slight umbilical hernia, and some enlargement of the abdomen. There was a mitral systolic murmur heard with varying distinctness throughout the chest. Subsequent examination revealed double lateral curvature of the spine, which did not exhibit pain in response to the usual tests.

On February 1, 1871, physical examination revealed greater extent of movement in the walls of the right thorax, and bronchial breathing on the left side from the clavicle to the fourth rib, in front and behind. On April 21 his head was evidently symmetrically enlarged, and about noon of this day he had a convulsion. He died April 22.

Post-mortem examination, twenty-two hours after death. Body much emaciated. Head large in proportion to body. No want of proportion between emaciation of face and body. Belly scaphoid. When the chest was opened and the sternum removed, the lower boundary of the heart was opposite the upper margin of the sixth rib, the upper border opposite the upper border of the second, the right boundary one inch beyond the right margin of the sternum, and the apex one inch without the articulation of the sixth costal cartilage with its rib.

In removing the lungs, heart, and bronchial glands together, an abscess was opened at the base of the neck. This extended upward to the upper margin of the first dorsal and down to the lower border of the fourth dorsal vertebra. On the right it reached to the articulation of the ribs with the vertebrae, but not quite so far on the left. This cavity contained between $f\frac{2}{3}$ and $f\frac{3}{4}$ of thick yellow pus and broken-down caseous matter.

The vertebrae projecting into it were much eroded, and the bodies of the third and fourth were destroyed by caries. The caseous matter in this cavity was precisely like that in the bronchial glands.

The bronchial glands were much enlarged, forming a mass as large as a lemon. On section they contained soft cheesy matter, much of it broken down, forming irregular cavities in the centre. In others there was cheesy deposit in a portion of the gland which in some instances had not begun to soften. These enlarged glands projected more towards the left than the right side, and compressed the upper part of the left lung.

Lungs.—The left lung was strongly adherent, except the upper half of the upper lobe, which was free. The right lung was free. The left lung crepitated slightly on section. The upper lobe contained some miliary tubercles. The lower lobe was carnified and covered with old, dense, false membranes. It contained but few tubercles. The upper lobe of the right lung was quite healthy, and contained no tubercles; the lower lobe, in its posterior portions, was congested; its margins were collapsed and contained a few tubercles.

Heart.—At the apex and in contact with the walls of the chest was an irregular patch, three-fourths of an inch in diameter. This was elevated one-eighth of an inch, and was dense, firm, and yellowish-white in color. The whole visceral layer of the pericardium was somewhat thickened, and at the base, and especially over the left auricle, was roughened by previous inflammation. Opposite this point the parietal layer was decidedly rough. The sac was not adherent, and it contained a little clear serum. The weight of the heart and pericardium was seven ounces. The right auricle contained a large decolorized clot. The water test proved the mitral valve to be insufficient. The left ventricle was much hypertrophied; its walls were firm and half an inch thick. The cavity contained a long decolorized coagulum extending up into the auricle. The aortic valves were much thickened, especially at their margins, but their surfaces were but little roughened. Of the mitral valve, the right leaflet and attached tendinous cords were much thickened. At the base of the leaflet and on its ventricular surface was a thick, opaque, oval patch. The mitral orifice was very rough, and large vegetations projected into it. The right ventricle was small, and its walls not hypertrophied. The tricuspid valves and orifice were healthy, the pulmonary artery and valves normal.

Liver.—Weight, one pound four ounces. It projected two and a half inches below the margin of the ribs, and contained numerous miliary tubercles. There was not the slightest trace

of fatty degeneration. In the fissures on the inferior surface of the organ were numerous enlarged lymphatic glands.

Spleen enlarged, firm, and contained some miliary tubercles and several yellow cheesy masses as large as a pea.

Intestines normal.

Upon removing the intestines, a large *iliac abscess* was discovered, filling the whole of the right iliac fossa. Upon opening this, six or eight ounces of thick yellow pus escaped. The bodies of the vertebrae here were not diseased.

Head.—On removing the calvaria, there escaped a large quantity of clear serum from the base of the brain. There was a considerable quantity in the ventricles. The weight of the brain, after the ventricles had been emptied of their fluid and the dura mater removed, was forty-eight ounces.

At the base of the brain, over the pons Varolii, the optic commissure, and in the fissure of Sylvius, was much recent yellow lymph, in which were numerous miliary tubercles.

On the inferior surface of the right lobe of the cerebellum was a hard, oval, umbilicated spot. On section this proved to be a tubercle,—one inch wide in its greatest by three-fourths of an inch in its shortest diameter. The margins were sharply defined, and it could be easily enucleated from its bed in the brain-substance. It had commenced to soften in the centre.

The substance of the brain was much softened, and the cavities of the ventricles were much enlarged.

At the base of the brain, and in the middle fossa of the skull on the right side, and just behind the lesser wing of the sphenoid bone, there was found a flattened tumor about an inch and a half in diameter. The dura mater over this was healthy. On turning back this membrane the mass was found to be composed of soft caseous and purulent matter. The bone beneath it was dead, rough, and eroded. Opposite this point, upon the exterior of the skull was a flattened projection, and before dissecting up the temporal fascia and muscle a second accumulation of caseous matter and pus was discovered. Beneath this the bone was likewise eroded and rough. There was no actual perforation of the skull, but the bone was very thin at this point.

DR. S. W. GROSS said that one of the most striking examples of this disease had recently been under his observation, in which the curve was towards the left side. With regard to the pain in the back, he remarked that it is by no means invariably present, and that it is so fallacious a symptom that patients might pass through all the stages of the affection without experiencing it. Nor is pain always elicited by percussing the vertebrae, or causing the patient to jump from a chair. The reason of this is in accordance with one of nature's laws, namely, that reparative inflammation is always coincident with destructive inflammation. While caries is going on in the anterior segment of the spine, adhesive inflammation is progressing in its posterior segment, rendering the affected portion rigid and inflexible and unimpressible to slight external violence. He recalled a case in which the bodies of the second, third, and fourth lumbar vertebrae had entirely disappeared in connection with psoas abscess, and not the slightest pain was elicited by pressure or tapping upon the vertebral spines. There was pain, however, in the abdominal region and about the spines of the ilium, of a reflex nature, just as pain in the knee accompanies hip-disease.

DR. W. W. KEEN said he had found in some of these cases that while he could not elicit pain by pressure on the vertebrae themselves, he could by pressure upon the ribs at a considerable distance from their vertebral attachment, thus taking advantage of leverage.

THE PRESIDENT asked whether the test of jumping from the chair to the floor had been tried, and also said that the direction of the curvature was unusual.

DR. PARRY replied that this test had been resorted to upon several occasions, and always with the same result. He wondered that he had not done the child serious injury by the severe movements to which he had subjected him. In regard to the direction of the curvature, it must be remembered that it is the result of the abscess in the right psoas and iliac regions, and that on account of the flexure of the right leg the convexity of the dorsal curvature would necessarily be towards the left side. On account of its obscurity, this symptom had particularly interested him. As was distinctly stated in the clinical history just detailed, the primary distortion was in the

lumbar region. The hip-joint was therefore carefully examined, and found to be healthy. He then as critically examined the spine, thinking that, though the curvature was lateral, there might be disease of the bodies of the vertebrae; but he could never detect any evidence of it, excepting the slight pain about the umbilicus and the crest of the ilium. The iliac fossa was repeatedly examined, and, as the abscess was behind the intestines, the part was always resonant. This, with the absence of tenderness, misled him.

Indeed, so latent was the disease in the pelvis that the case became very puzzling, and he was at one time almost led to doubt the correctness of his original observation, and to conclude that the dorsal was the primary spinal curvature. This led him to carefully examine Mr. Richard Barwell's views of the mechanism of these distortions.* This authority says that the curve is the result of over-action of the serratus magnus muscle upon the healthy side in pulmonary affections. The result is that the ribs are elevated and curved backward by this muscle, and these act as levers upon the bodies of the vertebrae, and produce the distortion which is always towards the sound side in respirative disorders. In this case, however, the convexity of the curvature was in the opposite direction, i.e. towards the left or compressed lung, and away from the sound or right one. Thus the case supported Mr. Barwell, and he was hence forced to believe the cause of this symptom to be seated in the spinal column or pelvis; but until the post-mortem, he is free to say, its true nature was not discovered.

The tumor of the cerebellum was referred to the Committee on Morbid Growths, who reported, May 11, as follows:

"The committee have carefully examined the morbid growth in the right lobe of the cerebellum, presented by Dr. Parry at the last meeting of the society. It is an irregularly rounded mass, about one inch in one direction by three-quarters of an inch in a direction at right angles to it. On section, the outer layers appear firm, but the inner soft and grumous. The microscope shows that it is a tuberculous nodule, presenting in the softened centre granular matter, debris of cells, free nuclei, and some feathery crystals of margarine,—in short, the usual appearances of tubercle in a state of caseous degeneration. Portions from the outer layers of the growth present the well-known irregularly rounded and granular tubercle-cells, some with one, others with two, nuclei. The most interesting point presented by the specimen is, however, in the opinion of your committee, the state of the small arteries and capillaries. In them may be studied to advantage the first commencements of tuberculous growth. Between their adventitia and inner coats are to be found rounded protuberances, in some of which are spindle-shaped granular cells, in others irregularly rounded granular cells, with one, two, or occasionally even more nuclei. Other portions of the vessels here are healthy, while in others, again, the entire fibrous coat is thickened and distended by a continuous new growth. In short, it presents a fine opportunity to study the development of tubercle; and for a more minute and detailed account, your committee would respectfully refer to the specimens afforded by this, and to the masterly descriptions of Rindfleisch and other writers on pathological anatomy."

DR. JOS. G. RICHARDSON exhibited part of the *arch of an aorta*, showing decided *contraction at the semilunar valves*, and remarked that it possessed some interest as a practical illustration of what we all know so well, that a serious cardiac lesion may give rise to physical signs so slight that they can readily be overlooked during a superficial examination.

Jesse C., the patient furnishing the specimen, a brick-maker, aged 45 years, applied at the dispensary of the Episcopal Hospital, March 13, 1871, for the relief of dyspepsia and pain in the left side. On palpation, the apex-beat was found in its normal situation; the impulse seemed rather feeble for a hypertrophied organ. On auscultation, the first sound appeared to be normal, but the second was preceded by a short, faint, but harsh systolic murmur, audible at the base of the heart, and transmitted for about an inch and a half upward along the ascending aorta. In the belief that constriction of the aortic orifice existed, the patient was earnestly warned against severe or prolonged exertion.

On the 22d of April my friend Dr. S. R. Knight, Superin-

* Lateral Curvature of the Spine, 2d ed., London, 1870.

tendent of the Episcopal Hospital, very kindly sent me the specimen, with a few memoranda in regard to the case. The man died on the 20th instant, and at the autopsy the lungs were found quite healthy, as were also the liver, spleen, stomach, and intestines; the heart showed evidence of fatty degeneration. About two years ago he was insured in the

Life Insurance Company, and his friends informed Dr. Knight that the examining physician was perfectly satisfied, and marked him A No. 1; also, that on the day of his death he consulted a practitioner near his residence, who, after a minute investigation, told him that there was nothing the matter with his heart, but that he was troubled with dyspepsia, which could soon be relieved.

The heart was found hypertrophied in a marked degree; and under the microscope its muscular fibres proved to have undergone decided and, in some instances, extensive fatty degeneration.

On examining the specimen, it will be seen that the posterior leaflet of the aortic valve is nearly normal, but that the right lateral leaflet is thickened at its anterior attachment, and so distorted by contraction at this extremity that its corpus Arantii occupies a position near the junction of its anterior and middle thirds instead of at the centre of its free margin. An interstitial hyperplasia in the wall of the aorta (apparently of some months' or years' standing) has thickened it to about the diameter of four lines, and so encroached upon the lumen of the vessel as almost to obliterate two of the sinuses of Valsalva, and even to cause a decided projection at and above the anterior attachments of the right and left lateral valvular leaflets.

The coronary arteries, whose origins are involved in the diseased portion, seem to be much contracted, a fact which may serve to account, in part at least, for the existence of fatty degeneration in the muscular fibres of the heart. It appears probable that the first effect of the new formation in the walls of the aorta was to diminish slightly the calibre of the great blood-vessel itself, and so, by obstructing the circulation, to stimulate the heart to excessive action, resulting in its moderate hypertrophy; afterwards, as the intramural deposit extended, it compressed the coronary arteries, and, by cutting off a part of their supply of blood, led to the fatty change of the muscular fibrillæ through impaired nutrition.

DR. JAMES C. WILSON presented the specimens from a case of *traumatic stricture of the urethra*, and read the history, published in the *Hospital Notes* of the present number of this journal.

DR. H. LENOX HODGE exhibited a *fetal monstrosity presenting protrusion of the abdominal contents*, which was referred to a special committee, who were directed to examine and accurately describe the fetus. They reported, May 11, as follows:

"The child was born at or about full term, and died without respiration having been established.

"The head was rather large, and the bones separated one from another by reason of hydrocephalus.

"The chest was small and not well developed. The anterior walls of the abdomen were absent, and the liver, stomach, spleen, small intestines, large intestines, and bladder protruded externally. The umbilical vein and hypogastric arteries united to form the cord a little anterior to the abdominal contents. The anterior walls of the bladder were wanting, only the posterior wall remaining. This condition, therefore, constituted what is known as extroversion of the bladder. An injection thrown into the ureter was seen to issue from a pin-hole orifice on the posterior surface of the bladder. The ureter from the right kidney as it approached the bladder became very much dilated, and tortuous like an intestine. Its size was as large as a man's finger. Above the bladder there was a sac with a rugous surface within, and about one inch in diameter. At the upper border of this sac the small intestine freely opened, so that whatever was injected into the small intestine below the stomach passed out at this orifice. The large intestine was much distended with gas, and an injection into it found no outlet. A little in advance of the normal position of the anus there was an indentation, but no passage leading from it could be found. Just in front of it there was another depression, but communicating with no canal. At a distance from these, and close to the thighs, were

folds of skin like the labia. There was also a projection below the bladder, like a clitoris. The pelvic bones were not united in front, but held together by ligament. The hiatus in the abdominal walls extended rather farther on the right side than on the left, so that the right kidney could be seen through the membranes.

"There was a *spina-bifida* in the lumbar region, and there were *club-feet* on both lower extremities, which were so much everted from the pelvis that the toes pointed backwards."

DR. J. E. MEARS exhibited an *eyeball*, which he had extirpated for *staphyloma corneæ*, the result of an attack of ophthalmia neonatorum.

The patient, a child seven years of age, complained of severe pain in the affected eye, and had at times discharges of fluid described as purulent. In this case it was deemed advisable to perform the operation of extirpation of the eyeball, in preference to the usual one of shaving off the staphyloma. It was removed entire, and has been kept for some weeks in a solution of bichromate of potassa, by means of which it has been hardened. A section of the globe showed marked thickening of the cornea, obliteration of the chambers, and destruction of the crystalline lens and iris. Portions of the iris could be detected attached at points to the posterior surface of the cornea.

DR. H. ALLEN (through kindness of Dr. JOHN S. PARRY) exhibited a specimen of *cystic tonsil*. The gland was obtained from the body of a boy about fourteen years old, the subject of cranial hyperostosis. This disease was more marked on the left than on the right side; and it is of interest to note that the diseased gland was on the same side. The specimen consisted in great part of a sac whose opening of about a line in diameter presented on the facial surface. Upon the upper portion of the sac a small portion of the original gland-tissue remained. The right tonsil was healthy, though slightly enlarged. No involvement of the lymphatic glands accompanied this exceptional condition.

The specimens were referred to the Committee on Morbid Growths, who reported, May 11, as follows:

"The tonsils presented by Dr. Allen show the marks of chronic inflammation, the interfollicular connective tissue being slightly increased and indurated. The follicles of both tonsils, instead of presenting the usual oval or round shape, were distended into large, irregular, star-shaped crypts.

"In these crypts, where the contents had not been previously evacuated, were found retained masses of disintegrated epithelium, fat-granules, and crystals of cholesterine.

"The occlusion of the orifices of the glands and the retention of their secretions have given rise to the formation of the cysts.

"Virchow, in his work on Tumors, vol. ii. p. 612, mentions the not infrequent occurrence of this distention of the follicles of the tonsils both in hypertrophy and atrophy, but does not bring them under the classification of cystic formations."

REVIEWS AND BOOK NOTICES.

CODE OF HEALTH OF THE SCHOOL OF SALERNUM. Translated into English Verse, with an Introduction, Notes, and Appendix. By JOHN ORDRONAU, LL.D., M.D., Professor of Medical Jurisprudence in the Law School of Columbia College, etc. 12mo, pp. 167. Philadelphia, J. B. Lippincott & Co., 1871.

We hail the appearance of the volume before us with infinite pleasure. It does honor to the author, and must be regarded as a most valuable addition to the medical literature of our country.

It is a source of gratification to every lover of our profession to find that we have among us colleagues who, while possessing the advantages resulting from a thorough classical education, have not thought it useless to store their minds with the writings of our professional ancestors, and are thereby able to form a better idea than they could otherwise do, of the revolutions which the science they cultivate has undergone, of the biographies of the men who have at various periods advanced it, of the rise and progress of the schools

where it was taught, and, above all, of the progress which has been made in the cure of disease.

Not less gratifying is it to us, that the author of the present volume, who holds a high rank among such physicians,—the number of whom, we are sorry to say, is “small by degrees and beautifully less,”—has had the happy thought of giving a good translation of a work of great antiquity, and which has never ceased, since it first made its appearance, to be held in veneration by medical men of every civilized nation of the world. To this translation the learned author has prefixed an historical sketch of the School of Salerno, the details which led to its formation, and the changes it underwent in the progress of time.

The School of Salerno deserves the particular notice of the medical reader, as well on account of its antiquity, and the important services it rendered the science of medicine, as for its high reputation,—attaining rapidly a degree of splendor from the tenth to the thirteenth centuries, knowing no equal in any part of Christendom, among those schools which had been founded after the downfall of the Roman Empire. This praise, though high, is in every way merited. For however imperfect it may have been in point of organization at its origin, and however true the charges brought against the members of the faculty by Ægidius Corboliensis—himself a distinguished pupil of the school—and others, of having more regard to the intervention of relics and religious superstitions than to scientific processes, it yet must be conceded that the School of Salerno, after the destruction of the great school of Alexandria, was almost the only preserver of professional knowledge in Western Europe during what has been called the dark ages, *i.e.* from the time which elapsed between the disappearance of educational institutions, to their re-establishment in various parts of Italy, France, and Germany. It served as a link between these two periods, and afforded, especially during and after the eleventh century, greater opportunities for the acquirement of useful medical knowledge than could be obtained in monasteries,—even in that of Monte Casino, which, though never possessing a regular and distinct faculty, or assuming the character of a well-organized academy, nevertheless enjoyed a pre-eminent reputation from its original establishment by St. Benedict in the sixth century, at first as a sort of infirmary for the cure of disease, and subsequently as a place where medical instruction could be obtained, and which during the tenth, eleventh, and twelfth centuries enumerated among its members teachers of eminent abilities, who attracted a large number of pupils to the monastery, and enriched the medical literature of the period with original works, and with translations from the Greek and Arabic languages.

The interest thus deservedly excited by this venerable institution will, we trust, justify our taking advantage of the present occasion to offer a short sketch of the history of the School of Salerno,—taken mainly from the account of it given by Dr. Ordonaux, and from that for which we are indebted to Dr. Daremberg, the learned editor of the French translation by M. de Saint-Marc, published in Paris in 1861, and to Sir Andrew Croke's prefixed by him to the edition which appeared at Oxford in 1830. We have also used freely the elaborate essay which Ackermann has given in his edition of the book published in 1790, and various reprints of the poem,—very fine and rare editions of which are contained in the Lewis portion of the rich library of the College of Physicians of Philadelphia.

As a school of medicine, consisting of a regularly appointed body of teachers, and intrusted with the duty of granting degrees to successful candidates with permission to practise, its origin may be traced back certainly to the ninth century, if not to an earlier date; but there is every reason to believe that long before this Salerno—the salubrious climate of which had been eulogized by historians and sung by Horace—was visited by invalids who sought there relief from their sufferings, and contained a number of skilful and learned physicians, who, while attending to the duties of their profession, occupied a portion of their time in teaching, independently of one another, the several branches of medicine. But, with all this before us, if we endeavor to ascertain at what precise time and by whom the school was instituted, as also the names and writings of its earliest teachers, we are forced to admit that little is known. An early historian and eulogist of Salerno, Ant.

Mazza, quoting from an ancient manuscript, informs his readers that the school was founded—at what time is not stated—by four individuals, Robanus Helenus, a Jew; Pontus, a Greek; Adela, a Saracen; and Salernus, a Latin, who taught medicine in their respective languages. But all this is evidently nothing but a legend, or a personification, as it were, of the four elements which were supposed to exist in the Salernitan doctrines. “The common opinion,” says a recent writer, “carries us back to the epoch of the destruction of Alexandria by the Arabs. It is pretended that after that mournful event for the sciences, the teachers of philosophy and medicine, who were very numerous in that city, were scattered in different countries; that some sought refuge at Salerno, where they laid the foundation of a medical school, which grew rapidly.” Others, again, attribute its origin to a number of Hebrew, Arabian, and Christian physicians, the latter of whom were monks, who having studied in the Arabian schools of Spain returned to their country, and there assumed the task of imparting to others the knowledge they had obtained abroad.

But on all this much uncertainty exists, while we may with perfect safety deny the correctness of the statement of Friend relative to the origin of the school, when he tells us that “so great was the renown acquired by the place as a seat of medical learning, and such the number of individuals collected there to obtain professional instruction,” that Charlemagne “thought fit to form a college there in 802,—the only one of the kind in Europe.” To this it has been opposed, not only that the School of Salerno was in existence before the time of Charlemagne, and was not instituted a university till long after, but that the city was never in his possession, and that therefore he never could have exercised any agency in the establishment of its institutions.

In relation to this uncertainty, and the long-mooted question whether the school was ecclesiastical or lay, Dr. Ordonaux thinks that it is hardly worth while to open any discussion. Suffice it to know that it is a fact no longer to be gainsaid that as early as the time mentioned a “school of medicine existed at Salerno; that it flourished, and was the acknowledged head of all European medical academies during the middle ages. In proof of the high standing of that school, and the reputation enjoyed by its professors and physicians for practical skill, the author recalls the fact that, as early as 984, Adalberon, Bishop of Verdun, is recorded to have visited Salerno for the purpose of obtaining medical advice; that in 1050 the Abbot of Monte Casino, Desiderius, afterwards known as Pope Victor III., also came there for the same purpose; and that Peter Damiani, writing about the same time, mentions, in terms of high praise, Gariopontus, one of the masters in its school, as an aged philosopher greatly skilled in medical lore.” “Romualdus,” he adds, “writing in 1075, speaks emphatically of the high renown already achieved by Salerno, of which place he had not only been archbishop, but had also obtained a wide reputation as a skilful practitioner of medicine. The archives of the Neapolitan kingdom contain the names of Salernitan physicians of as early a date as 846. Whenever the school is mentioned by medical writers, it is always spoken of reverentially, because of its great antiquity.” Let it be remarked, in addition, that it is certain that the texts of the eleventh and twelfth centuries accord in proving that the school was already very ancient. We must, besides, recollect that the very title of *school*, by which the institution was designated, was in the language of the time applied to an association of learned men officially intrusted with the duties of teaching. Hence, as Mr. Daremberg has well said, it could not have been used to mean a number of isolated physicians teaching independently of one another, but a regular medical institution, the members of which took the name of MASTER, —the title of doctor not being introduced before the thirteenth century. From the year 1000 to the year 1050 the names multiply; and the professional works which have reached us give the strongest proofs of the rapid development the school had made, even previous to the arrival of Constantine the African, who, though entitled to great credit for the numerous works he issued both at Salerno and Monte Casino, where he finally retired, was in no way instrumental in establishing the school or raising its reputation, as has been stated by Ackermann and other historians.

Until a comparatively recent period, but a limited number of the works composed by Salernitan physicians were known, and little was thought or said by medical historians of the character of the school, which was generally regarded as of too little importance to merit much attention. In this respect matters have assumed a different turn, thanks to the good fortune and industrious researches of a few learned medical antiquaries. In 1837, Dr. Henschel, the learned professor of medicine in the school of Breslau, discovered in the library of that city a fine manuscript of the thirteenth century, labelled *Herbarium*. The volume contained not less than thirty-five treatises, all of Salernitan origin, and embracing every department of medical science, except surgery. Several of these treatises were already known, but the majority were new. The second of these is entitled *De Aegritudinum Curatione*, and is composed of 173 chapters. It constitutes, as we are told by M. Daremberg, a sort of encyclopædia,—a true medical *summa*, similar to those of Oribasius, Aetius, and Paulus Egineta,—a series of extracts taken from a large number of named Salernitan masters, some of whom were already known, but the greater number had never been heard of before. Since the discovery of this collection by Dr. Henschel, many other Salernitan writings have been added to the list by the indefatigable and learned Dr. De Renzi, of Naples, who ransacked the archives of that city. The celebrated scholar Dr. Daremberg, of Paris, also made important discoveries at Venice, Vienna, Cambridge, and Basle. Both these writers have combined in editing and publishing at Naples an ample collection of these writings in five octavo volumes, under the title of *Collectio Salernitana; ossia Documenti inediti, e Trattati di Medicina appartenenti alla Scuola Medica Salernitana, etc.* This collection embraces the works discovered by them, and such of those discovered by Dr. Henschel as had not been published or were not known to exist in manuscript.

As time progressed, the organization of the school was modified, under the emperor Frederick II. It was raised to the rank of a University, with a regular faculty of ten professors, who succeeded each other according to seniority. "The statutes of the college," as Dr. Ordonaux tells us, "are remarkable for the jealous guardianship which they exercised over the purity and proficiency of candidates for medical degrees." The school selected for its patron St. Matthew, and for the motto on its seal the words "*Civitas Hippocratica*." The examination of candidates was conducted with great strictness, and consisted in expositions either of Galen's Therapeutics, the first book of Avicenna, or in the Aphorisms of Hippocrates and the Analytics of Aristotle. If successful, the candidate received the title of M.A. and Physician,—*Magister Artium et Physices*.

Before presenting themselves for admission for examination at the school, candidates for graduation were required to have gone through, during three years, a course of instruction on philosophical and literary subjects. They were obliged to be of *legitimate birth* and twenty-one years of age, and to furnish proof of having studied medicine during seven years. But even then the degree thus obtained did not authorize the recipient to practise indiscriminately every branch of the profession; for if he desired to practise surgery he was obliged, in addition, to apply himself for a whole year to the study of anatomy. To this let it be added that every one, whatever might be the branch he proposed to practise, was obliged to swear that he would "be true and obedient to the society of physicians, to refuse all fees from the poor, and to have no share of gains with apothecaries." A book was then put into his hand, a ring upon his finger, his head was crowned with laurel, and he was dismissed with a kiss.

It may be mentioned in connection with the subject that anatomy was taught by means of the dissection of hogs and by the descriptions contained in the works of Galen, and that the student engaged in such pursuits was also obliged to familiarize himself with the mode of performing surgical operations on the human body.

These statutes were modified from time to time. By one promulgated in the reign of the emperor Frederick, grandson of Roger, the candidate for graduation was obliged, before receiving his degree and a license to practise, to have studied five years medicine, as also surgery, which, as the statute states,

constitutes a part of medicine; and after that he was, moreover, obliged to receive practical instruction from some old and experienced physician,—a circumstance which seems to indicate that clinical medicine, properly so called, formed no part of the regular course of instruction obtained in the school.

But, in whatever way these statutes were modified, the spirit of rigid honor and medical orthodoxy in which they were cast was never abated or lost sight of to the last. The fees of practitioners were fixed by law and duly regulated according to time and distance.

The school retained the pre-eminence it had so long and deservedly enjoyed, till the same emperor Frederick who had, as Dr. Ordonaux remarks, legislated so wisely in his ordinances regulating medical instruction and practice, dealt a fatal blow to it by the establishment of a rival academy at Naples. Other kindred institutions besides that were soon established at Bologna, Padua, Piacenza, Rome, Montpellier, Paris, and other places more accessible to students, and which also presented a larger field for professional instruction, and thereby tended to lessen the attractions that Salerno had offered for so long a period. Hence from that moment the active life of the school began to decline; and, after struggling for more than a century against these adverse influences, it dwindled down to a mere provincial school, and finally disappeared and was forgotten. "Thus died the venerable and venerated mother of all Christian medical schools, amid the splendors of a meridional civilization of which, in her own department, she had been the day-star and the morning glory."

BOOKS AND PAMPHLETS RECEIVED.

Address of George Bentham, Esq., F.R.S., President. Read at the Anniversary Meeting of the Linnæan Society on Friday, May 24, 1867. Pamphlet, pp. 24.

Dynamics of Nerve and Muscle. By Charles Bland Ralcliffe, M.D., F.R.C.P., etc. etc. 8vo, pp. xii., 288. London, Macmillan & Co., 1871.

GLEANINGS FROM OUR EXCHANGES.

THE PATHOLOGY OF THE FLOATING KIDNEY.—Dr. Rud. H. Ferber reports in *Virchow's Archives* (vol. lli. p. 95) two cases of floating kidney, and makes a few remarks on the pathology of this affection. In one of his cases the patient had a severe fall upon his back, and he is disposed to think in most cases of movable kidney that inquiry will show that the patient has at some time or other received an injury to his back. If from any cause the cellular tissue about the kidney or the duodeno-renal ligament becomes relaxed, the organ is then retained in its place only by the large blood-vessels; and if the peritoneum is at the same time yielding, it will move freely about the abdomen, its movements certainly being restrained only by the blood-vessels and the ureters. In young subjects the kidney will sometimes be found in the true pelvis, but it is rare that the tissues are so yielding in older people. In the second of his cases Dr. Ferber attributes the displacement to fright. This, as is well known, occasions an increased secretion of urine, and consequently a congested condition of the kidney and an increased weight.

Dr. Ferber's first patient was only sixteen years old; which is younger, he says, than any other patient whose case is reported. The affection is much more common in women than in men, for in nine only out of fifty-nine cases the patients were men. Sometimes the displacement of the kidney gives rise to considerable disturbance of nutrition, as in the first case reported in Dr. Ferber's paper, in which pyelitis was set up in consequence of irritation; and sometimes to pressure upon the various nerve-plexuses in the abdomen.

Dr. Ferber takes occasion to recommend the preparations of lead in pyelitis, and says that in both his cases great general improvement followed the drinking of the blood of oxen.

TREATMENT OF NOCTURNAL INCONTINENCE OF SEMEN.—Dr. J. B. Bradbury, in the course of some clinical remarks (*Brit. Med. Journal*, April 8, 1871), after alluding to the

value of chloral in the treatment of nocturnal incontinence of urine, takes occasion to call attention to the value of this remedy in a closely allied functional disorder, viz., spermatorrhoea. He agrees with Trousseau in thinking that in many cases of this affection, semen is ejected simply in consequence of the excessive contractility of the vesiculae seminales, which are frequently in a state of erection. It is not uncommon to find that persons who are troubled with nocturnal incontinence of urine in boyhood suffer from nocturnal incontinence of semen when they have arrived at the age of puberty; and occasionally the two affections may coexist in the same person. Two cases are reported in which a cure is said to have been effected by the administration of fifteen grains of chloral every night. "Whenever, therefore," he says, "there is reason to believe that nocturnal urinary and seminal incontinence are due to spasm, hydrate of chloral will be found a most serviceable drug in their treatment, in consequence of the acknowledged power of this drug of allaying spasm, as observed in tetanus and other spasmodic disorders." He claims for chloral the following advantages over belladonna in the treatment of these affections: 1. That the effect of belladonna is not so immediate, frequently taking weeks to produce any marked control over the disease, whereas the influence of chloral hydrate is most rapid, the malady frequently disappearing after the first dose of the remedy; 2. That belladonna sometimes induces profuse diarrhoea, a result which is never produced by chloral; 3. That belladonna, when pushed to the extent to which it is necessary to be really efficacious, not unfrequently impairs vision, which is not the case with chloral hydrate; 4. That belladonna sometimes failed to be of any service.

In concluding, he says that he has not tried chloral hydrate as a remedy in epilepsy; but he is of opinion that it will be found useful in the treatment of some forms of this affection, believing, as he does, that there is a close similarity between epilepsy and nocturnal enuresis.

LYMPH-SPACES OF THE CORNEA.—Dr. Genersich, of Pesth (*The Academy*, March 15, 1871), has a paper in *Stricker's Medizinische Jahrbücher*, Heft i., on this subject. When the cornea is treated with nitrate of silver, there are seen in it with the microscope certain irregularly stellate bodies with long anastomosing processes, light on a dark ground. These are the Saftkanälchen of Recklinghausen, and are considered by him spaces from which the lymphatic canals of the cornea take origin. These silver images are, however, by Schweigger-Seidel believed to be post-mortem products due to changes in the reagents employed in preparation; but Dr. G.'s observations tend to confirm Recklinghausen's views. He first inflamed the cornea, and found that the Saftkanälchen shortened their processes and became rounder, much like the connective-tissue corpuscles in Stricker's own observation. This alteration of form under inflammation he believes to be an argument against the silver images being artificial products. He next took cornea intensely stained with silver and placed them in the lymph-sacs of living frogs, and examined them, after five or six days, with Hartnack's No. 10 immersion lens. The tissue was, as usual, full of leucocytes or wander-cells which had made their way into it. He also saw them moving within the Saftkanälchen, and saw them pass from one stellate space to another along the narrow channels of intercommunication. In no case did he see a leucocyte pass the boundary of a Saftkanal. He also observed in one case the entrance of a second leucocyte into an already occupied stellate space: the two leucocytes fused together, forming one large mass, which subsequently divided into two, and one part made its way out of the space.

SUBCUTANEOUS INJECTION OF ERGOTIN IN UTERINE DISEASES.—Dr. Von Swidersky (*Berliner Klinische Wochenschrift*, No. 50, 1870; from *Brit. Med. Journal*, February 4, 1871, p. 123) states that he has employed subcutaneous injection of ergotin in chronic metritis, uterine displacements, and metrorrhagia, with satisfactory results. Severe bearing-down pains are often produced, from within half an hour to two hours after the injection, and continue for some hours. The following forms of injection were used: 1. Aqueous extract of ergot, 2.5 parts; rectified spirit and glycerine, of each, 7.5 parts. 2. Aqueous extract of ergot, 2 parts; rectified spirit,

5; glycerine, 10. 3. Aqueous extract of ergot, rectified spirit, each, 2.5 parts; glycerine, 12.5. 4. Aqueous extract of ergot, 1 part; rectified spirit, 1.5; distilled water, 4.5; glycerine, 3. The solutions 3 and 4 are used in chronic cases; 1 and 2 where a rapid effect is required.

SUGAR IN URINE.—Prof. Almen, of Stockholm (*Apoth. Zeitung*, 1871, No. 4), observed that urine of patients who have taken oil of turpentine contains sugar, which disappears after the oil of turpentine has been discontinued for a day. After the use of turpentine (12 grains daily) a mere trace of sugar was observed. No reaction for sugar was obtained after the use of copaiba and cubeba (*Amer. Jour. of Pharmacy*, May, 1871).

ON ANTI-PERISTALTIC MOVEMENTS.—M. Engelmann and G. v. Brakel (*The Academy*, March 15; from *Pflüger's Archiv*, Band iv. p. 33) show that, notwithstanding the statements to the contrary sometimes made, anti-peristaltic movements may easily be rendered visible in the intestines and ureters of animals recently dead. Engelmann opened the abdominal cavity of a cat that had just been killed, and found the intestines absolutely quiescent; but on seizing and pinching a fold of intestine, a wave of contraction was observed to be propagated peristaltically to the ileo-cæcal valve, and anti-peristaltically to the pylorus from the point irritated. Both waves travelled at the rate of about $1\frac{1}{2}$ inches per second. Many other experiments by M. Brakel on the ureters and uterus, as well as various parts of the intestinal canal of animals, as rats, mice, pigeons (especially wild), frogs, rabbits, etc., conclusively demonstrated that, in all membranes composed of smooth muscular tissue, whenever peristaltic contractions can be induced anti-peristaltic contractions may also occur.

MISCELLANY.

DEATH OF M. LONGET.—This celebrated physiologist, member of the French Institute and of the French Academy of Medicine, died at the age of sixty-eight, at Bordeaux, a few days since. M. Longet is the author of works on the nervous system which explain many of his own discoveries. His death was sudden, and was referred by his friends to the horror with which he was stricken upon hearing the sad news from Paris.

DEATH OF PROFESSOR OPPOZZER.—It is with extreme regret that we announce the death of this distinguished clinical teacher, which took place on Sunday, April 16, of typhus fever. As late as the Tuesday preceding his death he was lecturing in the wards in which, as Senior Professor of Clinical Medicine, he had just succeeded Skoda. Although not so widely known as the latter, he was a much more popular lecturer: his lectures were consequently much better attended, and he will be long remembered by physicians, both here and in Europe, who had the good fortune to hear them. Prof. Oppolzer, besides being a contributor to periodical medical literature, was the author of *Lectures on Special Pathology and Therapeutics*, which our readers will remember were very favorably noticed in the columns of this journal. Like many of his colleagues in the Vienna School, Oppolzer was not a German, having been born in Bohemia. He was excessively devoted to the interests of the students, and frequently spent two or even three hours in the wards or dead-house, for he made it an invariable rule to witness the autopsies of patients who died in his wards. He was about sixty-three years of age at the time of his death.

ALLEGED MALPRACTICE.—A Cairo newspaper contains the particulars of a suit recently brought against Dr. Wardner, of that city, to recover damages in the sum of \$10,000 for

alleged malpractice by the defendant in the treatment of a very complicated injury of the plaintiff's arm. By the newspaper account it appears that "the radius was fractured obliquely in the lower part of the middle third, the head of the radius dislocated forward upon the humerus, the external condyle of the humerus was broken and slightly displaced outwards, the ligaments and tissues about the elbow-joint badly torn, and the lower end of the ulna was thrust downwards, causing a stretching or rupture of the radio-ulnar ligaments at the wrist, including the sacciform membrane." With an injury so extensive, it is not surprising after union had taken place that there should be some interference with the movements of the elbow and wrist joints, and some deformity left. The treatment was, moreover, fully approved of, and pronounced to be in strict accordance with the highest authority, not only by the physicians of the vicinity, but by Professors Gross, Hamilton, Eve, Davis, and others, whose depositions in the case had been taken. Each medical witness examined, whether on behalf of the plaintiff or the defendant, stated that from the character and extent of the injuries, judging of them, not from the diagnosis of the defendant, but from the appearance of the arm at the trial, the result was as good as could reasonably be expected. The article concludes with the following sensible remarks: "It may be well, and profitable too, for all to learn that a physician or surgeon, unless by special warranty, does not contract to effect a perfect cure; and the fact, however apparent, of a partial failure, is no evidence of want of skill or improper treatment."

APPOINTMENTS AT HOME AND ABROAD.—Mr. Bryant has been elected Surgeon, and Mr. Davies Colley Assistant-Surgeon, to Guy's Hospital. Mr. Cock has been elected Consulting Surgeon.

Professor Liebermeister, of Zurich, has been chosen to succeed the lamented Professor Niemeyer, of Tübingen.

Dr. Wm. T. Lusk has been appointed Professor of Obstetrics and Diseases of Women, and Dr. E. L. Keyes, Lecturer on Dermatology, in the Bellevue Hospital Medical College.

Dr. E. L. Janeway has been appointed Professor of Pathological Anatomy in the medical department of the University of New York.

Dr. Richard Inglis has been appointed Professor of Obstetrics in the Detroit Medical College. Professor E. W. Jenks, the former incumbent, retains the chair of Diseases of Women and Children.

HOW MEDICINE FLOURISHES UNDER THE COMMUNE.—It is of course natural that, in the condition of affairs in Paris at the present time, there should be little or no medical news; but a Paris correspondent of the *Medical Times and Gazette* gives a most woeful account of the attempts of the Commune to manage medical schools, hospitals, ambulances, and the like. It appears that the Medical School has been closed, because none of the professors were willing to be dictated to by M. Naquet, the new Dean appointed by the Commune. In order that education might not suffer, a decree has been issued calling upon the physicians of each district to assemble at their respective Mairies on Saturday, April 22, and elect two delegates from every district; for the medical students to gather at the School of Medicine on the same day, and elect ten delegates; and for the so-called *Professeurs libres* to consult with their colleagues, Drs. Dupré and Rambaud, two disappointed private teachers of anatomy, and elect three delegates. These chosen representatives were then to meet the following

day, and draw up a plan of reorganization for the Medical School, which plan was afterwards to be submitted to those members of the Commune now representing the former *Ministre de l'Instruction publique*, and, finally, to be voted upon in a public meeting by the whole Commune. Field-surgeons are said to be in great demand, and a gentle warning has been issued to the medical staff, who some months ago, in an honest war, were attached to battalions which are now fighting for plunder, that if they absent themselves from their duties they will be considered deserters and punished accordingly.

The principal surgeon of the federal army is a Dr. Courtillier, a distiller of perfumes. Every effort is made by the Commune to conceal their losses; but it is well known that the number of admissions to the hospitals is very large.

MORTALITY OF PHILADELPHIA.—The following reports are condensed from the records at the Health Office:

	For the week ending	
	May 13.	May 20.
Consumption	39	39
Other Diseases of Respiratory Organs	28	34
Diseases of Brain and Nervous System	37	43
Diseases of Organs of Circulation	18	20
Diseases of Abdominal Organs	26	23
Zymotic Diseases	11	20
Debility	17	22
Marasmus	8	8
Cancer	2	6
Scrofula	3	1
Tetanus	0	1
Syphilis	1	2
Intemperance	3	0
Casualties	7	11
Old Age	9	12
Stillborn	17	15
Insanity	1	0
Suicide	0	1
Unclassifiable	9	5
Unknown	2	2
Totals	238	254
Adults	134	138
Minors	104	116

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM MAY 5, 1871, TO MAY 18, 1871, INCLUSIVE.

- McLAREN, A. N., SURGEON.—By S. O. 103, Headquarters Department of the East, May 17, 1871, granted leave of absence for 30 days.
- BYRNE, C. C., SURGEON.—By S. O. 99, Headquarters Department of the East, May 12, 1871, granted leave of absence for 30 days.
- WOODHULL, ALFRED A., ASSISTANT-SURGEON.—By S. O. 83, Headquarters Department of the Missouri, May 8, 1871, granted leave of absence for 30 days, with permission to apply at Headquarters Military Division of the Missouri for an extension of 30 days.
- GIBSON, J. R., ASSISTANT-SURGEON.—By S. O. 190, War Department, A. G. O., May 13, 1871, relieved from duty in the Department of the Missouri (District of New Mexico), and to report in person to the Surgeon-General for assignment to duty.
- MIDDLETON, P., ASSISTANT-SURGEON.—By S. O. 97, Headquarters Department of the South, May 10, 1871, granted leave of absence for 30 days, on condition that he provide proper medical attendance for the command during his absence.
- CARVALLO, CARLOS, ASSISTANT-SURGEON.—By S. O. 89, Headquarters Department of Texas, May 6, 1871, to accompany troops from Jefferson, Texas, to Fort Richardson, Texas, and, on his arrival there, to proceed to Fort Griffin, Texas, and report for duty as post-surgeon.
- LORING, L. V., ASSISTANT-SURGEON.—By S. O. 85, Headquarters Department of the Missouri, May 10, 1871, assigned to duty in the field with Sixth United States Cavalry, near Fort Hays, Kansas.
- DICKSON, J. M., ASSISTANT-SURGEON.—By S. O. 79, Headquarters Department of the Platte, May 11, 1871, relieved at Fort Sedgewick, Colorado Territory, and assigned to temporary duty at Omaha Barracks, Nebraska.